

The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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No. 2481.—Vol. LIII.

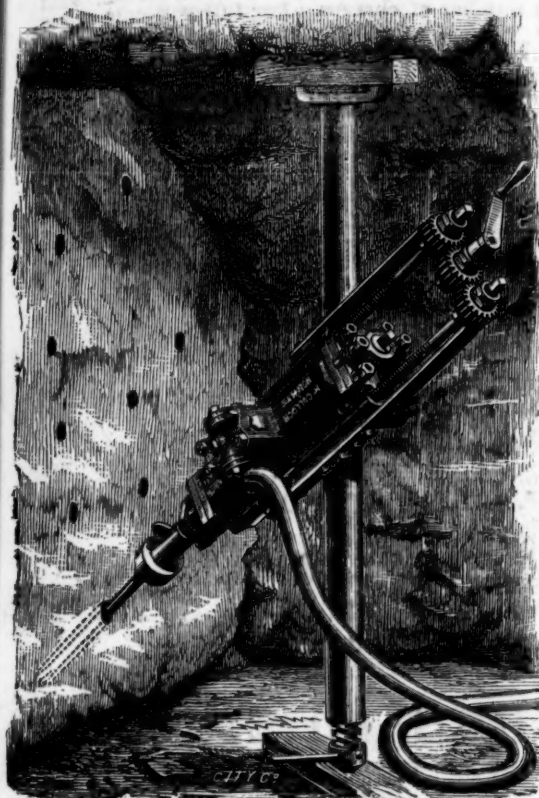
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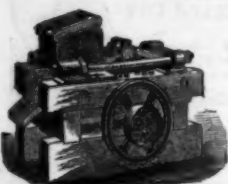
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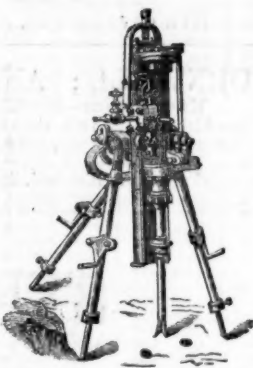
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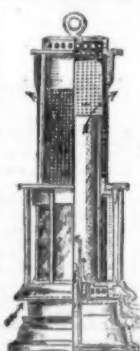
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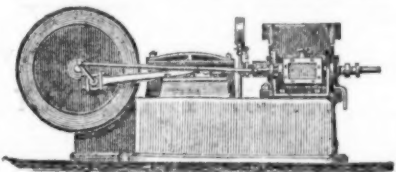
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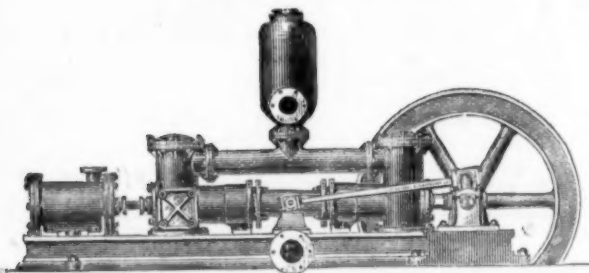
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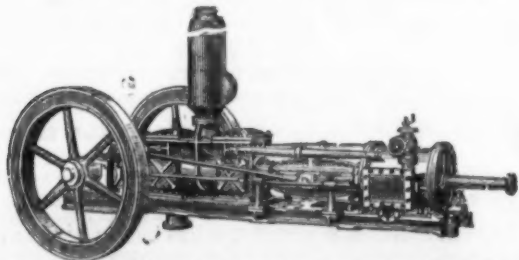
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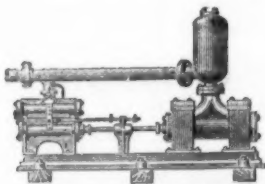
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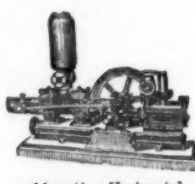
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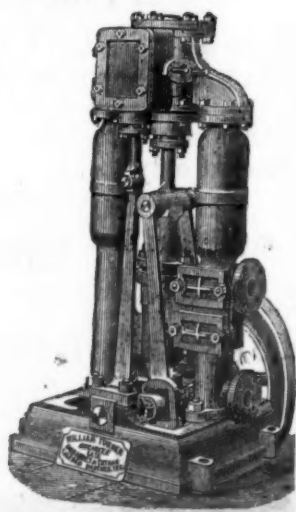
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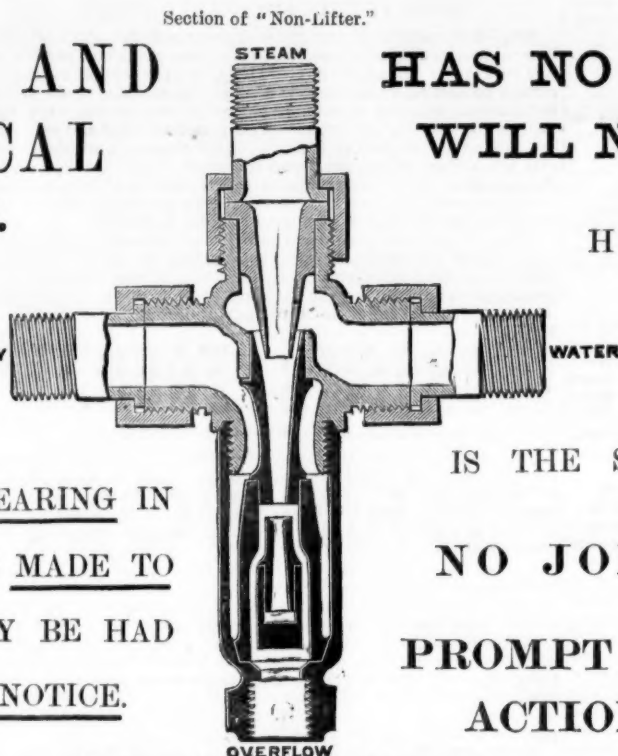
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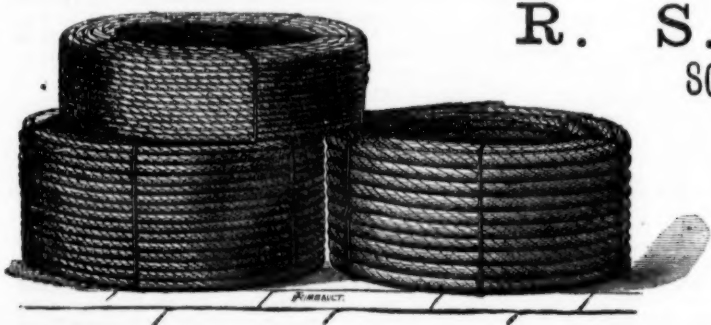
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THE LARGEST MILL ENGINES IN THE WORLD.—Messrs. Hick, Hargreaves, and Co., of Bolton Soho Ironworks, are at present completing engines of enormous proportions for an immense cotton mill in Bombay. They are for one of the Manockjee Petit Mills, owned by Mr. Durshaw, a wealthy Parsee. The largest mill engines used in Lancashire are of about 1000-horse power, while these are of 4000-horse power, with cylinders of 50 in. and 84 in. diameter, and 8 ft. stroke, with steam 100 lbs. pressure, and 720 ft. piston speed per minute. The fly-wheel is 140 tons weight, 30 ft. in diameter, and about 15 ft. wide on the face. The Eagley Mill engines, which were recently supplied by the same firm, are the largest single engines in this country, indicating 1800-horse power. Messrs. Hick and Co. have also in hand engines of 400-horse power, which will be the first ever erected in Baroda, and a short time ago the first set of engines were sent by the firm to Japan.

BY-PRODUCTS OF COKING.—It appears that the patentees of the Simon-Carves process for the utilisation of by-products, especially tar and ammonia, in coking have given substantial evidence of their confidence as to the large profits to be realised under their process, since in France they have already some years ago made arrangements with a well-known iron and steel company to build at their (the patentees) own expense a considerable number of coke ovens, for the use of which the company in question has to pay nothing whatever, except a certain share in the by-products sold, the coal being supplied by the ironworks company, and they in return receiving the coke plus the remaining share of the value of the by-products. Moreover, after a certain number of years the coke ovens become, without any money payment whatever, the free property of the ironworks. This business is paying well.

HOLLOWAY'S PILLS.—This purifying and regulating medicine should be had recourse to during foggy, cold, and wet weather. These pills are the best preventive of hoarseness, sore throat, pleurisy, and asthma, and are sure remedies for congestion, bronchitis, and inflammation. A moderate attention to the directions folded round each box will enable every invalid to take the pills in the most advantageous manner; they will there be taught the proper doses, and the circumstances under which they must either be increased or diminished. Holloway's pills act as alteratives, aperients, and tonics. Whenever these pills have been taken as the last resource, the result has always been gratifying. Even when they fail to cure, they always assuage the severity of the symptoms and diminish the danger.

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GOLD MINING IN NEW ZEALAND—THREE OUNCES OF GOLD TO THE TON AT KAPANGA.

SIR,—I have been for a long time waiting for the prophets of the mining market to discover the above phenomenon, but not until your correspondent of a fortnight ago has any broker or other discovered that all that the millions were squandered for in the Indian bubbles are being quietly returned in the most ordinary and regular manner by the above mine (I might add that the 2000 ozs. has now been passed), in so ordinary and regular a style is this being done that not a ripple of excitement disturbs the market; but had it come within the influence of those gentry who mine by circular and not by sinking (except into the pockets of their dupes) a mine making its returns would be selling for as many pounds as it now does for shillings. Is there anything that proves more conclusively the utter ignorance which pervades those who invest in mining investments, or is it very surprising they lose so heavily in the process. Here is a mine with all shafts and machinery in thorough working order, commanding several lodges of great richness, with abundant working capital, and returning monthly for a year gold at the rate of 3 ozs. to the ton, and is going about begging at a discount of 25 per cent. Here all risk is eliminated, as the lodges are reached, and large returns made. How are we to explain the anomaly? W. T. C. Derby, March 5.

THE INDIAN GOLD MINES.

SIR,—Anent the Indian gold mines, from the way the public now seem to frown on them, and from the remarks of late of the Press, which may be supposed to know more about them than unfortunate shareholders resident in all parts of the kingdom, it is surely time for directors and managers to consider whether it is not time to cease throwing good money after bad, and dividing what still remains of the capital subscribed in those companies, where there is any left, such, for instance, as the Trevelyan, which seems to be a rich company, as they are reported to have engaged to work part of the Dingley Dell property.

It cannot be said that in many of the cases they have not had ample time to test whether the "said-to-be lodges" are myths or whether there is gold ore sufficiently rich to make it profitable to work; for instance, the Indian Gold Mines Company has been nearly four years in existence, the South Indian and Glenrock Companies over three years, and so on, and yet we shareholders are as far from seeing success as ever, so far at least as the directors let it be known, and I fear that as a rule, so far as shareholders are concerned, these directors are fit for little else than drawing their too extravagant fees.

From the particulars given in the action reported in the Times of Feb. 26 (page 4) we get a little insight into the way the floating of some of those companies must have been manoeuvred. It seems that a certain Mr. Woolley bought two estates at 2700*l.*, and got an introduction from a Mr. Lonsdale to Mr. Harding, who had been successful in getting up gold mining companies, and succeeded in selling to Mr. Harding these two properties a few months afterwards at 35,000*l.*, but from the report of the trial something seems to have been said about "blood money," not a very elegant expression I should say; but one who has heard now and again of the way some such companies have been floated, as it is called, one can conjecture what the term means. About 20 years ago I have heard of the liberal distribution of "palm oil," but which men claiming to be men of proper principle would have disdained to have anything to do with; but in regard to this "blood money," this Mr. Harding, whoever he may be, seems to have said that he has often paid it himself to get rid of bother. The report of this trial is well worth shareholders' reading; however, if this is the way that fair dealing shareholders are used by promoters in getting up public companies how can such companies be expected to pay? Here are properties taken over at 35,000*l.*, which a few months before had been bought at 2700*l.* It is time for active shareholders to look into the way they have been used in the getting up of those Indian companies to find out who has got the cream off them; too much I expect will be attempted to be laid on the back of Mr. Brough Smyth. J. B. Bolton, March 7.

THE GOLD AND DIAMOND FIELDS OF SOUTH AFRICA.

SIR,—I regret to say small-pox has again broken out in the colony, although up to the present not to an alarming extent. The commercial depression here increases, and the slight rise in the price of diamonds has made no perceptible difference in our share market. Our diamond formations are well defined and quite large enough, and as to the quantity of diamonds they contain there is surely nothing to complain of; people are, therefore, very naturally asking what is the matter with the place, and the only correct reply is, "The Mining Board is the matter." I have always pointed out that the Mining Board is the curse of Kimberley; that they were ruining one of the grandest industries that ever a kind Providence placed in the hands of any community. That instead of working for the benefit of the community, each member has fought for individual interest, until—like the Kilkenney cats—nothing has been left but quivering tails. The Mining Board is still the curse of the place, but their struggles are more desperate, and, like drowning men in a water-hole, each tries to float by pushing his neighbour under. It has come to my knowledge that very recently large English capitalists have refused to invest in the Kimberley Mine entirely on account of the Mining Board. They say they believe in the richness of the mine generally, but they cannot place their capital under the control of the owners of unprofitable claims, who always appear as a majority at the Mining Board.

If each company was allowed to work on its own merits, without interfering or being interfered with by its neighbour, the same as in every other mining country, Kimberley would to-day be in a flourishing condition. The petty holders have been instrumental in contracting a debt against the mine of about 400,000*l.* Since when they have arranged the assessment of the mine so nicely as to throw nearly the whole of this liability on two or three good companies; these things cannot be kept secret, and becoming known they assist materially in preventing an influx of capital into this place. The people of Kimberley are beginning to see that my views with regard to the Mining Board are correct, and this evening a meeting is to be held to consider the advisability of petitioning the Government to take over the control of the mines. This is a step in the right direction, and will do much towards restoring confidence in this place. Amalgamation, as at first proposed, would ruin almost every business man in Kimberley; it would soon drive away the majority of the white population, and would be downright cruel to such a company as the Kimberley Waterworks, who have done so much for the benefit of this place. I have just heard that a beautiful white diamond of 150 carats has been picked up from the surface about 50 miles from here; this is not a bad indication, and if another mine as good as Kimberley is not opened soon I am very much mistaken. Fair progress is being made in removing the reef from the Kimberley Mine just now, and as the contractor, Mr. Jones, is removing it about four times as expeditiously as any previous contractor, some of the members of the Mining Board—true to their principles—are naturally endeavouring to clog his efforts.

At De Beers Mine the Frere Company's ground has been sold by auction, but it did not realise a tithe of what it was put into a company at a short time ago. At Dutoitspan and Bultfontein things are almost as bad as they can be, and the "pound of flesh" principle adopted by the London and South African Exploration Company has ruined nearly all the companies.

Interested parties are trying to make the public believe that the Transvaal is the bright spot in South Africa, but dull as times are here it is a thousand times better than the Transvaal. The best joke that I have heard for a long time is the projected "Transvaal Mineral Works" at Pretoria for carrying on smelting operations. There is some little game behind the scenes that I have not got hold of yet. But of one thing I am certain, an iron spoon and a spirit lamp would meet all the requirements of the Transvaal for a long

time to come. I remember a smelting works being started between Pretoria and Rustenburg some years ago—in fact the chimney stack is there now—for the purpose of smelting the mountains (?) of lead ore in the neighbourhood. It is a fact that after they had smelted all the ore, they had to pull down the furnace to get at the bits of metal which had disappeared in the cracks, and to the present day the bold investors wear those bits of lead suspended to their watch-chains as mementos of that flourishing industry.

The news from the gold fields is not very encouraging, except at Brown's Hill (Pilgrim's Rest) and Spitz Kop. Commandeering in the Transvaal still goes on, and the slaughter of blacks appears to be a part of the new Boer creed. It appears that the Mr. Nellmapius who assisted General Joubert in blowing up Mapoch's Kaffirs by dynamite and the electric current, is a manufacturer of peach brandy. The Advertiser says a couple of hundred of hogsheads of this liquor, which is warranted to kill at 40 yards, would do more execution than dynamite. As Mr. Nellmapius has a concession for the brandy-making, the Advertiser suggests he ought to get a concession to finish the war. The dead Kaffirs are likely to be more effective against the Boer savages than the live ones, and the stench arising from the large caves full of slaughtered blacks have compelled the Boer chiefs to remove their forces. CORRESPONDENT. Kimberley, Feb. 1.

SOUTH AFRICAN SYNDICATE COMPANY.

SIR,—You were kind enough to recommend Mr. John Medley Stuart as a mining engineer, and upon these recommendations he was sent to the Transvaal, South Africa, to examine and report on certain properties, a commission which he has executed to our entire satisfaction, evincing in such examination intelligence, care, and skill of the very highest order. Mr. Stuart discovered and explored some old mines, worked at least 200 or 300 years ago, which should give him a place among the noted travellers of South Africa, and a distinguished rank in his profession. The remains of these ancient workings show in places the removal of vast quantities of gold and silver ore, and miles of shafts, tunnels, adits, and levels.

Other mining engineers have passed over the same ground, but from lack of intelligence or experience failed to observe what Mr. Stuart's practical training enabled him to discover. You are congratulated upon your recommendation of Mr. Stuart. A telegram this day received from Mr. Hamilton and the representative of Messrs. Rickard Brothers fully bears out the report furnished to us by Mr. Stuart.—London, Feb. 27. ROBT. MONTAGU, Chairman.

[Mr. Stuart's report will, no doubt, be published or more fully referred to in next week's Journal.]

MINING ON THE GOLD COAST.

SIR,—Knowing that the Journal is always open to your readers for legitimate enquiries, I have trespassed on this occasion. There are several mines on the Taconah range on the Gold Coast of Africa, some of them of long standing—the last to which attention was directed being that of the Taconah Gold Company, which was announced with the flourish of trumpets at the meeting held in April last to the following effect:—"At 30 ft. they came upon the lode, the natives refused to receive money for their labour as the ore was so good, so they worked upon the plan of taking one-third for themselves. That ore, which has been accumulated up to the present time (April last), and which is now on the property of the company, the mining engineer has been instructed to make arrangements for stamping, so that we may have gold at an early period. I think this is one of the best mines in the country, and I have no doubt from the progress we have made that there will be early dividends payable to the shareholders." (Vide report.)

Notwithstanding this favourable report given at the meeting in April last, no further information has since been vouchsafed to the shareholders. It would, therefore, be very satisfactory to obtain through your columns the result of the stamping of this rich ore, and when this promised early dividend is forthcoming. E. W. Moorgate-street, March 7.

AKANKOO, AND THE GOLD COAST.

SIR,—As a considerable shareholder in the above company, and one taking a great deal of interest in the subject of mining on the Gold Coast, but yet from various causes hitherto unable to attend the meetings and lift up my voice there, I shall esteem it a favour if you will allow this letter to appear in your Journal. Believing as I do, that the directors, themselves large shareholders, are most anxious to open up this property with as little delay as possible, I do not write in any hostile spirit, but desire in all courtesy to attract the attention of both directors and shareholders to one or two subjects which appear to me might benefit by a little ventilation. The Chairman, at the last general meeting in December, stated that the machinery now on its way out "comprises a 20 stamp mill, but the number of stamps can be increased at any time with a very small additional cost. We did not think it advisable first of all to go to the expense of sending out more than 20 stamps." Mr. Lane, the manager, says too, somewhere, that is sufficient for an untried mine. That is to say—we have paid in cash and shares 50,000*l.* for a right to work this property, have spent large sums in opening it out, making tramways, houses, wharves, purchasing stores, steam launch, lighters, keeping up a large European staff, tested the reefs, found them plentiful and rich, and then when results are within our grasp deem it inexpedient to send out more than 20 stamps. This is surely penny wise and pound foolish. If, as Mr. Lane believes, this is one of the finest mining properties in the world, why should not the comparatively insignificant additional expense be incurred, and sufficient crushing power be sent out to crush (say) 100 tons per diem. The policy of spending money freely for the attainment of a certain object, and then closing the purse-strings when just within reach is what I for one cannot understand. I see that the Gold Coast Company is in the predicament in which we shall find ourselves, and though successfully crushing have been obliged to send home for more stamps. Let us hope our directors may take warning and prepare accordingly. At the same meeting the Chairman, in reply to a shareholder, stated that the subject of alluvial working was under consideration.

Mr. Cornish, in his report of July, 1881, referring apparently to the system of panning and not to hydraulic, stated that he believed there were valuable alluvial deposits which could be worked in the dry season.

Capt. Burton, in his book on the Gold Coast (which all having interests there would do well to read), draws especial attention to hydraulic and its applicability to the Gold Coast mines. Of Akankoo he says, "a forcing-pump and crinoline hose will for the present be far more useful than stamps and engines," and describes how he would lay bare Ponsonby Hill by sluicing, and arrange for the collection of the gold from the alluvial, with which it is so plentifully charged, at the same time laying bare the rock for quarrying. As the expense is inconsiderable it seems a pity that this subject has not been considered and matured by our directors. The great success attending the formation of other companies, such as the Oriza, who proceed on this system, renders it certainly worthy of consideration.

Mr. Cornish, in his report above quoted, expresses it as probable that other minerals of value may be found, but he does not state what Capt. Burton does, that Capt. Cameron had actually discovered a large vein of cinnabar which, on being subjected to the blow-pipe, produced mercury. He also found manganese, but we have not heard if any further development of these minerals has been initiated. Both of these eminent travellers refer to the undoubted richness of the Akankoo Mine. The elder traveller, in his lecture before the Society of Arts, remarked that "Akankoo is the richest ground they had hitherto seen," and elsewhere describes it as the rich Akankoo. Capt. Cameron, also, when describing a sketch he was exhibiting of the Akankoo reef before the Royal Geographical Society, spoke of it as full of gold. All this combined with what we know, by test of the rock sent home and the opinions of Messrs. Cornish, Lane, and other experts, surely renders its development with full crushing power a matter most desirable.

On the subject of gold mining on the coast generally, Capt. Burton points a strong moral when he recommends the various companies to

act in unison and harmony, and not as hostile or in competition, and this with especial reference to the labour market. Why should not the various managers form a sort of council or syndicate to regulate this supremely important point? At present there appears to be sufficient labour to meet the needs of the few companies now working, but it behoves the directors of all to look ahead and prepare for a future when the supply will be inadequate to the demand, and by common action take steps to meet the emergency, and initiate them without delay. If I remember right, Capt. Burton offered to undertake the organisation of some system of importing coolies, Chinese, or Indians, and it might be well to consider this. This same co-operative system might also with advantage be applied to the payment of officers for general purposes, medical men, &c. I trust you will see no objection to publish this somewhat lengthy letter. U. X. Cullumpton, March 7.

RAMBLES IN MANITOBA.

SIR,—It was September, the days were beautiful, the nights were cool, the flies had disappeared, the ducks and geese and other game had arrived, indeed it is the finest month in the north-west. Up at six o'clock, breakfast at the St. Louis, drive through Winnipeg. People in London need not suppose we do not have any drives. We have not Rotten Row—hardly to be expected that a city seven years old would have Rotten Row—yet a great many people who come out from England wonder why a new country is not as good as England; they compare everything with England, and if it does not equal England then it is not much. What we in Winnipeg say is this: That Winnipeg seven years old is better than London seven years old was. Drive through Winnipeg on an express wagon with a jolly carman, with the sun beaming down with no smoke or dust or dirt. We had a good many holes and a great many jolts, but the horse was accustomed to the holes and one of the men accustomed to the jolts. The other man had an idea it would have been nicer in a hansom, where he would not have had his bottom dollar shook out of him.

Arriving at the station we found a hubbub. Passengers for Portage La Prairie, for Winnipeg West, High Bluffs, Poplar Point, Austin, De Wintur, Sidney, and Brandon. Passengers for Flat Creek, Broadview, Qu Appelle, and Regina. Passengers for the Rocky Mountains, Fort Walsh, and Edmonton. All on one train, all going West. Mr. Greeley said, "Go West, young man." The people of Canada are beginning to take Greeley's advice. In the United States they have gone West, so far that they cannot go any further without meeting the east, but Canada can yet say "Go West, young man." And it is a glorious heritage for this generation—1500 miles of the most fertile land in the whole world opened to the Anglo-Saxon race—opened without any payment except the fee of \$20. Think of it, ye men of England, ye men of Ireland that want land. You can get 820 acres of land in the Canadian North-West for \$20 if you choose to live on it, and settle for three years. What England should do is this: If she has men that are inclined to govern the country on Liberal principles—I mean real Liberal principles—she should charter the Great Eastern, form regiments of peace, and bring all who want to leave Ireland out of Ireland and plant them in the North-West. There is no use of those men coming out here alone to be fooled by each agent and kicked around before they get used to the country. If they come out here as an army of peace they would be respected, and would be able to pay England back the money she spends. Even looking at it in the most utilitarian and Shylock view would it not pay England better to take the animated human music that is doing nothing, or worse than nothing to-day in Ireland, and give them 160 acres of land, and put them under control. Irishmen do not want to beg, but they do want to be placed in circumstances where their work will be remunerative. But I shall never get through with my journey.

At last we have started, about ten cars an ordinary train, going West. The Central Pacific Railway is a marvel. It has astonished the whole of America, and they are not easily astonished with regard to railway construction. The run to Portage La Prairie was in good time, and the appearance of the country was beautiful. A few more years and the white houses of the North American farmer will dot the plain—a few more years and the people will wonder more. How the Hudson Bay Company fooled us. How the Hudson Bay Company forgot to tell the truth. Now they are playing on the other side of the instrument; now they say everything is good because they want to sell their land. Look back into the history of the Hudson's Bay Company. The country was too cold for cereals. It was only good for the fur-bearing animals. These gentlemen may be gentlemen, but they are liable to tell different sorts of stories.

Off towards Brandon the run was made in about seven hours—145 miles. As the track gets smoother it will be better. I shall have to leave the reader here, and shall take a trip from Brandon south in my next letter.—Toronto, Feb. 14. BOURNONITE.

PIERREFITTE MINING COMPANY.

SIR,—In the Mining Journal of Jan. 20, Mr. Richard Davies says I was wrong in relation to his having been to Shepherds. But he admits having been at the other mine in the same neighbourhood which belongs to the same interests, which shows that my informant was substantially correct. Those who are practically connected with those interests say very differently to Mr. Davies about the matter. Mr. Davies is in error in stating that the highest produce for lead any ores made whilst I was under the company was 45 per cent. I am at present too far away to have access to books or documents showing the particulars on this head, but if he will trouble himself to notice the sales of ores as published in the Mining Journal he will find prices realised while I was there, which it appears with all the efforts of the now thoroughly equipped machinery did not at their last sale equal. The last sale of Pierrefitte ores that I have any knowledge of realised 14*l.* 17*s.* 6*d.* per ton; whereas ores were sold while I was there that were quoted in the Journal 15*l.* 15*s.* per ton. But this is notable. No ores were sold from the rich discovery in the South Mine, and very little from the rich discoveries in the North Mine while I was there. So it is quite clear from the last sale the ores broken from the superior courses of ore are now dressed to realise a less price than what some of the ores of a lower grade did broken from other parts of the mine when I was there.

But let Mr. Davies confine himself to the question in hand—one of the points of which is this. From motives and reasons which he, Mr. Davies, cannot penetrate, the late managers, and one or two others of the same type out there made representations to the board of an exceedingly dishonourable nature (in my opinion), and which there are sound reasons for concluding they knew to be false and malicious at the time they were making them (in my opinion)—that the halvans (leavings) left by the Royal Asturian Company when they sold the mine to the present company could be dressed by the jiggers they have put up to realise 15*l.* per ton, and all the refuse and low grade ore produced in the mines be dressed by the same jiggers to realise the same price. Let us have no beating about the bush in this matter. Let Mr. Davies, or them, or anyone else answer the question straight in the face. Has it been done? If they will tell the truth they must say no! And I will repeat what I stated before. To perform what they pledged themselves to the board they would do has resulted in complete failure—to dress the halvans left by the former company, and the refuse ores of the present company to realise 15*l.* per ton. Mr. Davies states "no doctoring would ever make his machines do that." Do what pray? Dress the Pierrefitte lead ores up to 75 per cent for lead is the meaning conveyed. In this we are perfectly agreed; and I add, no, nor any jiggers in the world. He states—"whereas the new machinery erected since can dress it up to 75 per cent." For what? A combination of magnetic zinc and lead, or 75 per cent. for lead only. If the latter is meant I would ask why then has it not been done? The simple fact of having dressed parcels of lead ore that might have produced 75 per cent. for lead does not establish what he would have people believe—that the Pierrefitte ores generally are now being dressed up to a produce for lead of 75 per cent. Are not the facts of the case these, that a parcel or two of lead ores has been prepared from the rich discovery in the South Mine of the richest portions of the ore, and the bulk rejected; and if any have been broken from the North Mine the bulk has been rejected in the same way? And a fictitious conclusion ought to be drawn for obvious purposes. Will Mr. Davies

kindly state what percentage of lead the leavings left by the Royal Asturian Company, and the general leavings of the present company are being dressed at? This is the main question on this point—and tell me for what reason some of the ores after they have been thoroughly turned out of hand by the jiggers he speaks so highly of, and which have been on their way to the smelters, have had to be returned back to the mine again and be dressed over two or three times more?—*North Carolina, Feb. 17.* GEORGE RICKARD.

MINING IN COLORADO.

SIR,—During the past six months I have received several letters inquiring the reason why certain mines did not pay dividends. To these enquirers, and to others who have doubtless had the same question in their minds, I will reply briefly through your valuable Journal, as it may be the means of doing some good to the general public. It is a well known fact to the community here that many of our largest and best mines have paid largely when worked by the owners who lived here, but as soon as they passed into the hands of a corporation have not only ceased to pay dividends at all, but have actually lost money and got deeply in debt. The reason of this is frequently if not always be traced to either an extravagant or inexperienced manager; and if mining companies owning property in Colorado, and more especially in Clear Creek County, would only carefully examine, they would see the money that is thus daily squandered, and would no longer employ worthless managers at high salaries, and then there would no longer be any necessity of asking why mines are not paying dividends?

Mining is the staple industry of Colorado, and more particularly of Clear Creek County, which is entirely dependent upon its mines. The yield of these being *per capita* larger than any other county in the State, it is, therefore, very important to the people of this district that the mines should be placed in competent hands for management. Among the hundreds of very valuable lodes that have been discovered, and the scores that have been bought and sold for enormous sums, how few have been managed by experienced and practical men. It would almost seem that the companies select the most inexperienced, incapable, and unscrupulous men to manage their business. To my own personal knowledge the managers of some important mines in Clear Creek County, where hundreds of thousands of pounds are at stake, have been taken from bakeshops, from farms, and from telegraph offices. Why such a selection was made it is difficult to say, but to such causes must be assigned the reason why the mines are not paying dividends, and why 20% is being paid for 10% or 15% worth of labour. It is not the fault of the mines. I do not hesitate to say that if the mines were managed by discreet, experienced, and practical men whose honesty is not doubted, but, like Caesar's wife, beyond suspicion, and the money saved that is squandered through poor management, high salaries, and multiplicity of officers, that Colorado, and especially Clear Creek County, will produce more dividend mines than any other part of the United States of equal size. DANIEL ROBERTS, Mining Operator. *Georgetown, Colorado, Feb. 13.*

CALLAO BIS GOLD MINING COMPANY.

SIR,—The directors of this company have had their attention called to several letters which have recently appeared in your Journal, bearing the signature of Mr. C. C. Downes. Mr. Downes having been discharged from the service of the company, and as, following his dismissal, legal proceedings have been instituted, and are now pending against him, the directors have no intention of entering into a discussion with him. Mr. Downes, however, in his last letter to you, makes a most unwarrantable statement regarding Mr. Nicholson, inconsistent with the facts of the case; and I am therefore requested by the board to state that, on Mr. Downes' recall, Mr. Nicholson was allowed by his company to select and appoint an agent to take temporary charge of our property during the necessary interval before the appointment of a new manager. Mr. Nicholson has no interest in the future management of this company, and his assistance was only rendered available through the friendly feeling existing between the boards of the Chile and Callao Bis Companies. I may here say that the appointment of local manager to this company has already been filled.

My colleagues consider it due to Mr. Nicholson to lose no time in contradicting the statement of Mr. Downes, and declaring it to be entirely without foundation, as some weeks must necessarily elapse before Mr. Nicholson can himself deal with the matter. His well-known reputation is, however, in itself an answer to the accusation. In conclusion, I may add that notwithstanding Mr. Downes' assertion to the contrary, the fullest information has always been afforded in reply to enquiries made of the secretary at the company's offices, and can at all times be so obtained, and the influential shareholders who Mr. Downes says have consulted him, may (if they exist), by calling at the office have explained to them not only the circumstances attending the dismissal of Mr. Downes, but other matters concerning the interests of the shareholders. CHAS. RONALDSON, Chairman. *Finsbury Pavement, March 8.*

THE CALLAO BIS GOLD MINING COMPANY—No. VII.

SIR,—The shareholders of this company have at last received some slight intimation from the directors of the official news received by them up to Jan. 20 last from Mr. Nicholson, and this, to a great extent, corroborates the information forwarded to you in my last two letters. There is, however, in my opinion, a great discrepancy in relation to the lode which has been cut in the No. 1 shaft, as Mr. Nicholson suggests that from his direction it may possibly be either the Corina, the Nacupai, or the Dallacosta veins. If either of these were the case the old English proverb of "shooting at the pigeon and hitting the crow" would be strikingly exemplified, since all efforts for the past two years have been centred in discovering the Callao vein; and it is now suggested that, in place of this, one of three others may possibly have been struck. Now, touching the Corina lode, upon which the Nacupai—more familiarly known as the Nouveau Monde Company—have worked, it is well known that this vein bears considerably east of south, and that it, therefore, runs in an entirely opposite direction; the Nacupai lode proper, also extensively wrought upon by the Nouveau Monde Company, I have myself traced for a considerable distance, and know that its course must be nearly half a mile from the No. 1 shaft of the Callao Bis Company. In regard to the Dallacosta vein, I am confident that, though it crosses the Callao Bis property, its bearing precludes the possibility of its being met with, either in the neighbourhood of the No. 1 shaft or at the depth at which the lode in that shaft has been discovered. The quality and texture of the quartz from this lode differ so materially from that of the Callao vein that it does not require the eye of an expert to discover the difference between the two. There is, as I have already stated in a previous letter, an all-absorbing notion in the minds of the people of Callao that the Callao vein takes a sudden and altogether unaccountable turn in its strike to the westward, at some point in the distance of 1300 ft. which exists between the No. 4 Callao shaft and the No. 1, or main shaft of the Callao Bis Company. During my residence in El Callao I never succeeded in hearing of any well-founded argument for such a tradition, for tradition it is assuredly is; and I can only account for Mr. Nicholson's opinion by the supposition that he, also, has been imbued by this same traditional belief. Speaking from my own knowledge and examination of the wall of the lode, when I struck it during the first few days of August, 1882, the country rock was so exactly similar to that taken from the Callao Mine at a corresponding depth that it would have been extremely difficult for men working in the latter mine to distinguish the one from the other.

It has been stated that a distance of 40 ft. has been driven on the course of the discovered lode, and the only reason adduced for arguing against its being the Callao vein is that the bearing approximates more nearly to some other lode traversing that district. This argument seems to me, however, to be weak, inasmuch as the bearing of the strike of all lodes changes most materially from time to time, though they almost invariably revert to their same general direction. The opinion which I conveyed to you in the first of this series of letters remains unshaken by anything that has since trans-

pired; namely, that the lode discovered is no other than the Callao vein; and, further, that all explorations should be abandoned; that the lode discovered in the No. 1 shaft should be actively opened up and the quartz sent to the mill, that we may know its value in bulk as well as by assay. Properly managed and directed, this mine can and ought to take a leading position amongst the properties in Guayana held by foreigners, and owning such a length as it does on the course of the Callao vein, it should gradually and surely give results as a gold-producing mine, not inferior to those of its rich neighbour.

I often hear it remarked that the Chile Mine, situated some eight miles from Callao Bis, will sooner or later pay large dividends; now, the capital of the Chile Company is 500,000*l.*, in addition to which there are 50,000*l.* worth of 10 per cent. debentures. The value of the rock in the Chile Mine compares but poorly with that of the quartz from the El Callao lode, and their working expenses, from circumstances which I need not detail here, are far higher in comparison with those of Callao Bis. The capital of the latter company is, when fully issued, 180,000*l.*, just one-third of that of the Chile Company; if, then, the Chile Mine can pay a large dividend, how much more advantageously situated is the Callao Bis Mine, both in regard to its capital and to the value of its rock!

C. CAMPBELL DOWNES, A.M.Inst.C.E.,
Late Resident Engineer and Manager in Venezuela of the Callao Bis
London, March 8. Gold Mining Company.

NEW CALLAO COMPANY.

SIR,—Replying briefly to two letters in recent Journals, I beg to remark that it is much to be regretted that your correspondents did not attend the general meeting held on Feb. 15, when the directors were present to give every information. "Another Shareholder," in the Journal of Feb. 24, invites his fellow shareholders to call a special meeting to obtain details. If this correspondent will forward me his name, together with the names of sufficient shareholders to enable the board to call a special meeting, also the undertaking of these gentlemen to attend it, I shall be happy to convene one, and to give all information required. The affairs of this company will bear the strictest investigation, and the directors would be pleased to aid any scrutiny that would satisfy your three correspondents.

Bishopsgate-street, March 9. J. D. MASSEY, Chairman.

COAL AGENTS AND CONSUMERS—THE REMARKABLE CASE—EVESON v. NEW.

SIR,—The report of this above action in last week's Journal is not quite correct, nor does it convey any idea as to my true position in the action; I trust, therefore, you will insert this, my correction and explanation, in your next issue. My claim against Mr. New was for 8*l.* 17*s.* (not 18*l.* 17*s.* as you state), being cash paid to him on Jan. 30, 1877, in respect of a truck of coal to be delivered to Herne Hill Station, purchased from him with my authority by W. Moore, who was at that time my servant. It is quite true as Moore stated in giving evidence for the defence (not for me, as you report) that the coal was bought at 9*s.* 9*d.* per ton at the pit, but Moore went out of his way to assist Mr. New when he swore in evidence that the rate was paid by Mr. New as a convenience to me, which is as absurd as that he paid it without any responsibility of delivery, an absurdity patent to the very tyro in the trade. Of course, I am bound to accept the adverse judgment, but I am left in this position—I cannot claim against my customer because the railway company cannot prove delivery; I cannot recover against the railway company because I am not a party to the contract with them to carry the coal to Herne Hill; nor I cannot recover from New because the County Court Judge decides that New can recover payment of railway rate on coal from Staffordshire to Herne Hill, but is not bound to hand over the coal either there or anywhere else.

In conclusion, I may state that I have been at the trouble of much correspondence, not only with my customer but with the various railway companies over whose system the wagon passed, to try to obtain proof of delivery. I could not, however, obtain the needed proof, and upon consulting my solicitor I was advised that New was the party responsible; but upon writing him, I failed to obtain any reply thereto, hence my action; and although I have proved unsuccessful, the Judge evidently had some idea of the justice of my claim when he refused to listen to the heartrending appeal of Mr. New to be allowed costs.—*March 7.* G. J. EVESON.

ROCK-BORING MACHINERY—RAPIDITY OF DRIVAGE.

SIR,—In our communication to the Journal of last week we omitted to call attention to a most important item in the comparison of the results of Mr. Döring's machine at La Reyna Mines, and of our own at the St. Gothard Tunnel. Mr. Döring should have stated the pressure of air which is employed in the working of his machines. By consulting the official reports on the works at the St. Gothard Tunnel it can be readily ascertained that on the south side, where our machines, after replacing the Dubois-François system, were exclusively employed, the pressure was generally very low on account of the water-power being insufficient for suitably working the air-compressing machinery; and to show what was actually accomplished under most unfavourable circumstances we ask your leave to make the following quotation from the official report respecting the working of our machines:—

"La tension de l'air comprimé au front de taille, que avait été de 1 à 6 atmosphères pendant la première moitié du mois, s'est élevée, pendant la seconde moitié, à 2 à 4 atmosphères. Malgré la faible tension dont on disposait, on a obtenu pendant les 14 premiers jours un avancement journalier moyen de 4 à 6 mètres dans une roche solide et passablement riche en quartz. Ce résultat est une preuve de la bonne construction des machines perforatrices employées."

As Mr. Döring praises the compressing machinery which he employs, and presuming the gallery to be made will be of considerable length, we may naturally assume that the plant is already provided for continuing the driving for some distance, and we would ask if he is not in reality working his machines at present at a pressure of 4 to 5 atmospheres? The compressing plant would not be anything to boast of, nor the machines either, if they were not capable of working advantageously at such pressure.

Having long felt perfectly confident that we had produced the best boring machinery in existence, and thinking we had made it sufficiently known to the mining community, we have kept back certain facts and data from a feeling of delicacy and a sense of the fact that we did not need to interfere with the success of other machines, as we had no desire to monopolise the industry. But as it has been the continual custom to claim every superior quality for every machine which has appeared before the public, and as the methods employed to propagate their use have been in many cases such as to simply confuse the public and retard the introduction of boring machinery, we think we are justified in bringing to light some circumstances which will tend to confirm our claim to the superiority of our system.

Some two years ago the contractor of a large undertaking, when consulting us with regard to our machinery, stated, as a fact, that on the day previous a competitor had made the assertion before his board of directors that our machines were thrown out of the Festiniog Tunnel of the London and North Western Railway Company, and that his own had been taken to finish the work. We immediately furnished proof to the contrary, and the contractor above mentioned asked us to loan him the documents to present them at the succeeding meeting of the board. The facts were as follows:—The London and North Western Railway Company had first purchased six Burleigh drills, and afterward six Ingersoll drills; but on trial of these, not being satisfied with the results of either, they dispatched an expert to the St. Gothard Tunnel to investigate the working of our system and others, and upon his return they, on the ground of his report, at once ordered 10 of our machines, and a further number of 26 shortly afterwards, for the completion of the Festiniog Tunnel. The tunnel was about 2½ miles in length, in very hard ground (bastard slate, green granite, &c.), and we were informed at the time of starting the boring machinery that as many as 96 hand-jumpers had been used in making one hole 3 ft. deep. The average price paid us for these 36 machines was 152*l.* net. When the tunnel was finished we found the machines in such good condition that we made an offer of 50*l.* each for the lot as they came

from the work, and the chief engineer in reply expressed his surprise that we were not willing to offer half the original price, considering the state they were in. We finally arranged that he should put all the machines in perfect state of repair, and we then purchased them at 60*l.* each. We must admit that repairs had been made on them from time to time during the work; but not one of the cylinders had been renewed. We shall, if need be, cite other instances, and give particulars of cases where our machines were taken to replace other systems found inefficient.

We may here, moreover, state that some eight or ten years ago, one of the proprietors of a competing machine offered to purchase our patent rights for a sum of 28,000*l.*, and a royalty of 5*l.* on each machine sold afterwards. We make the following firm offer to all parties interested in boring machines:—We will undertake to have one of our machines, a new one or a secondhand machine reserved from the lot of 36 from the London and North Western Railway Company, without any selection on our part or choice whatever that we know of, worked for a period of, say, five successive days of ten hours each, in boring blocks of granite or other stone, and if such machine does not bore double the length of holes and at one half the cost of repairs (if any) of any other machine that shall accept the competition, we agree to forfeit 100*l.* to any charity our competitors in the trial may name. We should expect to accomplish what we indicate; but, even if we fail to do so, we shall be quite willing to support the loss for the purpose of bringing to the knowledge of the mining community some definite information as to the respective qualities of the different boring machines.

Place Vendôme, Paris, March 8.

McKEAN AND CO.

GREEN'S DRESSING MACHINERY.

SIR,—In reply to "Traveller" and "O. B. S." in the Journal of Feb. 24, I would merely say that I do not know whether it is Capt. Rickard's dressing machinery that has been employed at the Van Mines, but I have always understood it was put up by the company's manager, Capt. Williams. I notice "Traveller" says he has known skimpings, or shaft smalls, jigged for 2*s.* per ton. He does not give the cost of pulverising, or, as he terms it, reducing to a fine size. "O. B. S." however, says that 11 lbs. of lead, which means 1*l.*, will pay, and I infer that he includes everything—jigging and pulverising. Where has he done this? Let us know, as I think it will be well for him to enlighten us, and be an immense advantage to himself. One thing is quite plain—the doctors, in this instance, do not agree. I will not trouble your readers by following the irrelevant matter introduced. Every person must see what the object of your anonymous correspondent is, which can only be for purposes of damaging me as a maker of improved dressing machinery; and the reply I give to the aspersions is the following extracts from testimonials:—

From Mr. C. E. Bainbridge, Middleton-in-Teesdale, near Darlington, Sept. 27, 1873:—"In fact, without your machinery we should have been at a standstill, for we cannot get hands enough to supply all our wants elsewhere; and more machinery of a self-acting character, reducing labour to a minimum, is a necessity to the present state of the labour market. Over and above saving in cost is the saving in ore, which is not much short of 10 per cent."

From Mr. Montagu Beale, managing director, and Member of the Society of Mechanical Engineers, Great Winchester-street, London, E.C., May 15, 1873:—"I consider this company (the Cagliari) is much indebted to you for the success you have achieved at so small a cost. It may interest you to know, from my experience in several of the British possessions, including the whole of the Australian colonies, that my opinion is, I have never seen any dressing machinery that can efficiently, and at so small a cost, dress and separate metallic ores, however close the mechanical mixture may be, as yours."

From Mr. T. B. Stewart, manager, Duke of Buccleuch's Mines, Wanlockhead, Abington, N.B., March 20, 1876:—"Dear Sir: I have much pleasure in stating that a full and superior set of your dressing machinery has been at work connected with these mines for fully a month, and each day, as the moving parts become smoother, and those in charge understand the working of the machinery better, it gives increasing satisfaction, the ore being dressed more quickly, cheaply, and satisfactorily than by any other method."

From the *Mining Journal* of Feb. 24th last, page 229:—"East Wheel Rose.—The dressing machinery is acting magnificently, not only as to quantity, but also as regards the high standard of the ore when it reaches the lead house."

The business introduced by "O. B. S." and "Traveller" is simply this. I purchased the Old Bog machinery long before I sold it to the Old Shepherd's Company, and I sold it to them after due consideration on both sides, and they had value for their money, and I do not think such a transaction is a subject for a newspaper debate. Either my self-acting system of dressing metallic ores is an improvement on the hand method, or it is a failure. Does "O. B. S." or "Traveller" say that it is a failure, or what? I should not wonder if it was found that the next thing they are doing is to imitate what they now profess to depreciate. "O. B. S." has just about as much knowledge of me as he had of the subject in question when he said that I had specially designed the second-hand machinery sold to Old Shepherds for that mine. I repeat that if properly handled it is capable of dealing with the output during the erection of the principal floors, for all "O. B. S." may say to the contrary. I shall certainly take no further notice of him until he proves what he insinuates—that my system is a failure—and has the courage to let us know who he is.

The Foundry, Aberystwith, March 6. GEORGE GREEN.
P.S.—I can give abundance of other references if required.

COPPER MINING COMPANIES.

SIR,—The public are at length beginning to recognise once more the worth of these investments, which have recently been much depressed in price; they certainly do not offer the security of Consols, but they are moderately safe, and many of them might be bought to give a return, with comparatively little risk, of over 10 per cent. Rio Tinto 10*l.* shares have again risen to 145 premium, and Mason Barry shares to 65 prem. The dividends to be declared by these great companies can only be surmised, as neither company publishes any information respecting its earnings, except in the report to the annual meeting of shareholders.

The directors of the Chilean mining companies are much more communicative, and their action in this respect might advantageously be followed by the directors of the larger companies. The Panulcillo Company every three or four months issues a notice of the estimated earnings of the undertaking. Already the shareholders know by this means that for the six months ending December, 1882, the net revenue of the company was 22,600*l.*, or sufficient to pay a dividend next month at the rate of 17½ per cent. per annum. The 4*l.* shares stand at nearly 70 prem.; as they carry a half-yearly dividend of 6*s.* or 8*s.*, per share the return to an investor on the present price is about 10 per cent.

The Capiapo Company publish a monthly report of their estimated profits, so that the shareholders can judge for themselves month by month as to the progress of the concern. During the half-year ending December, 1882, the net profits amounted to 11,065*l.*, as against 7523*l.* in the corresponding period of 1881, an increase of almost 50 per cent. The Capiapo Company's dividend for the year ending June, 1882, was over 16 per cent., but about 3 per cent. out of this was accumulated profits of the previous year which was not divided, but was added to the capital, making the amount paid up on the shares 3*l.* 10*s.* instead of 3*l.* 8*s.* The capital of the company is 174,000*l.* As the earnings of the first half of the current financial year are so largely in excess of those for the corresponding period of the last year, it may be safely estimated that the dividend will be at least 13 per cent. The shares are quoted only 7 per cent. premium, so that a purchaser at the present time will obtain a return on his investment of 12 per cent. Interim dividends are paid by this company. A quarterly distribution of 1*s.* 6*d.* per share is announced as payable on March 22.

English and Australian Copper shares, on which a dividend of 2*s.* per share, or 4 per cent. per annum, has just been paid, are also giving a return of 6-66 per cent. In low-priced shares there is more room for improvement than in such high-priced shares as Rio Tinto

and Mason Barry, while there is not the same risk of a heavy fall as was witnessed in the shares of the Spanish companies last January. Six Copiapo shares may be purchased for the same money as one Rio Tinto share. If Copiapo rise only 4th it is the same thing for an investor as a rise of 2 in Rio Tinto. At most the Rio Tinto pay on the investment 6 per cent., while the others yield over 10 per cent. If copper should improve in price we may expect to see Panulcillo and Copiapo higher, but if copper remains at the present low price, or should even go lower, both companies would earn satisfactory dividends, which must eventually cause the shares to be better appreciated.—*London, March 7.* — **TEN PER CENT.**

RE-WORKING OLD MINES.

SIR,—Continuing my remarks in last week's Journal, I would observe that some of our silver-lead mines have been immensely rich down to 130, 160, and even 200 fms. below the surface, and two or three a little deeper, and then the lodes fail to yield sufficient quantities of silver-lead to pay costs, consequently the mines are suspended. In none of them did anyone take the slightest notice to see what was going on below the bottom levels, whether it was gold, silver, or what else. They knew that the silver-lead had failed. My opinion must, of course, be taken for what it is worth, but it is after many years' investigation and careful consideration that I can form this opinion, which, moreover, is supported by many circumstances. My views may appear unorthodox, but what would the man be called 60 years ago if he made a statement in Camborne or Redruth that tin would be found below the copper lodes which were then so rich in Dolcoath; why everybody would say he was mad, but such is the case at this moment near 400 fms. or 800 yards below the surface, and I believe it is the richest tin lode in the known world, and how many other mines in the Camborne district once rich for copper, now rich for tin, and not in Camborne district alone, but in many other districts, some in Liskeard, which is 40 miles east of Camborne. It is, however, in certain districts that rich minerals will be found deeper down, but not in all. Devon Great Consols will be a rich tin mine in depth, but I think the tin here will not be found as shallow as it was found in some other mines. Look at the Phoenix Mine, once rich for copper, now rich for tin; the granite formation had a great deal to do with this.

Now, Sir, some of our once rich mines in silver-lead paid very large profits, but the lead failed, and did not yield sufficient quantities to pay the costs, and the mines were suspended. Now, in my opinion, in some of those mines below the silver-lead there will be found immense quantities of silver, and it only requires one of those mines to be first sunk to prove this statement, when there will be such a rush for silver-lead sets as was never known in Cornwall before. I will hear just mention the name of one mine—West Chiverton, and I feel so confident that this mine would be found to contain millions worth of the precious metal. I have my reasons why I come to this conclusion. In the neighbourhood of this mine large quantities of silver have been raised; I know this fact. This being the upheaving of the deposit below I would strongly recommend people who are now working deep silver-lead mines to work well these deep levels, as it will not cost them anything, and it may lead to great results. I am sure this will come some day, when we shall not want to go to Nevada for silver. In many of our old silver-lead mines at the bottom the stratification changed, and the lead failed in quantity, having been forced up from below, while the more lumpy and valuable minerals are below. In some districts the silver-lead fails more shallow than in others for the reason above stated. Our silver-lead mines in Cornwall, as a rule, do not last down deep. Copper below 300 fms. is not so rich, and will not pay. Many are found rich for tin before they reach that depth. Tin in many districts is found below or under copper ore, and silver will be found under or below silver-lead. Some of the silver-lead mines I know of besides West Chiverton will, I think, be found full of silver. The lodes failed to yield sufficient quantities of silver-lead much shallower than West Chiverton. I have other reasons to back up my opinion that silver will be found in some of our silver-lead mines deeper down, and if dark killas is found at the bottom levels all the better. What is wanted now is to prove one of those mines to be a success, when this quarter of the globe would be moved. I know the districts in which mines are at this time at work and poor for the metal they are in search of, while the more valuable below is totally neglected; and some others that are now idle which contain inexhaustible supplies of the more valuable metals a little deeper down. I would suggest that one of the best should be tested by sinking the shafts only; not by dodging about the 20, 30, and 40 fathom levels and getting a little ore for the market that would not pay in the last workings; and now every 20s. worth of minerals sent to market costs 3s. This is not the proper and practical way to spend the shareholders' money, and before the bottom is reached the capital is all spent, and in some cases the mines are not half reached. I know of such cases, and some are now doing this very thing. Some years ago there was no small stir as to what would be the value of the lode at the then bottom level at Dolcoath Mine, as the ground had changed from very hard rock to a softer one, and some thought the lode would fall off in value; but I believe the lode was never so rich as at present. This only shows they are getting down to a mass of mineral—the lower deposit. — **THOS. PARKYN.**
Roche, March 7.

MINERS' RIGHTS, AND MINE LANDLORDS.

SIR,—I have carefully read Mr. Marriott's letter which was published in last week's Journal, and my first remark is that (if I recollect aright) some years since Mr. Marriott was very deaf. I am afraid he now is getting very blind—if so, at all events, his acts in Dolcoath are a case of the "blind leading the blind." Mr. Marriott seems to say that because at one time the lord of this mine had 1-24th dues, and by a new lease he afterwards had 1-16th, it is a precedent for more and more dues. It is no such thing. It shows simply the folly or mistake of the Dolcoath adventurers in times past ever entertaining such a thing as the increase of dues. What has Mr. Basset ever given either in brains or money to Dolcoath that his dues in this mine should be increased? If the adventurers were of my mind and Mr. Basset did not at once express his sorrow in listening to his penny-wise advisers offer a new lease on the old terms—I mean for 1-24th dues—I would not do one pennyworth of tutwork more than the clauses of the lease compelled me to do, and I would work only the richest part of the mine; then if I saw the mine as a profitable concern nearly ruined three years hence I would put in as purser a lawyer a non-shareholder, and at the proper hour I and my co-adventurers would relinquish (at the same moment) our shares. Doubtless the next day the merchants would lay hold of the machinery in part payment for their bills, and Mr. Basset would have not 1-15th or 1-12th of the dues, but the whole of the mine.

If the mine continued profitable to the end of the lease I think the only or safest course to prevent unpleasantness then and ever after from the hands of Mr. Basset's advisers would be the appointment of the lawyer non-shareholder as purser, and the "one and all" relinquishment of all adventurers. If an accident should happen at this time to the pitwork whereby the whole of the bottom of the mine became flooded Mr. Basset would be the quicker and the better loser how he had been misled.—*Guernsey, March 5.* — **H. V.**

MINERS' RIGHTS, AND MINE LANDLORDS.

SIR,—I am no shareholder in Dolcoath, therefore I am in one sense not interested in what Mr. Basset may choose to do relative to renewing the lease of this mine or otherwise. I am sorry to learn by last week's Journal that other persons in the position of mine landlords in Cornwall intend to try how far they can go in Mr. Basset's footsteps, in order to enrich themselves to the cost of mining adventurers. I hope they will not in the end "kill the goose" which has been laying golden eggs for them so long; I hope they will not ruin Cornish mining, and drive capital abroad. How pleased Australian tin miners must be. Now that tin and copper is found in Australia and other places mine landlords should rather reduce than increase their royalties. I urged in my last that Mr. Basset should have his 40,000*l.* and new shaft, but then he should in return reduce his dues from 1-15th to 1-24th. Mine landlords should reflect, and say to themselves "If I have rights I also have duties."

I am sorry to see that Mr. Basset is now talking of having 1-12th

instead of 1-15th as now dues. Now, if Mr. Basset should think for a moment he at once would see that the deeper a mine became "the smaller a dish" he should be content with 40,000*l.* for less dues six years hence, and another premium for a new lease with less again dues would be intelligible to a commonsense man. Doubtless it has never occurred to Mr. Basset that six years hence to a deep mine like Dolcoath be it ever so rich the difference between 1-12th and 1-15th may stop the mine, and the 9000*l.* a year be for ever gone to the Basset family. By last week's Journal I understand that Mr. Basset contends that it was the former adventurers and not the present ones (by their skill and pluck) who brought the mine into its present state. Mr. Basset should not talk so, for if the now adventurers by a lucky purchase became possessed of their shares it was no less being the lucky heir to the estate which gave Mr. Basset 9000*l.* a year. I hope Mr. Basset by his conduct will not do such that the mine in future shall bring him, his children, and his grandchildren something less than 9000 pence a year — **H. V.**
Guernsey, Feb. 26.

DOLCOATH MINE.

SIR,—It is much to be regretted that Mr. Basset, who till lately had been regarded as a model landlord, should have been so ill-advised as he has been in the matter of the proposed reversionary lease of Dolcoath. As there are nearly 4½ years' further tenure under the existing lease, the best course for the company to take at the meeting to be held on the 20th inst. would be to decline altogether the acceptance of Mr. Basset's proposals, and continue to work the mine according to the powers and covenants of the lease—i.e., fairly. By the time the lease is near its termination the lord and the company will be the better able to determine the new terms with more propriety than can be done at present. The then state of the mine will have to be considered. Its condition may materially change in the interim. The company should prosecute the mine fairly, as they have been doing hitherto, and take it for granted, as they may, I think, well do, that the lord will grant a new lease on reasonable terms. Possibly he may see it right to grant at less dues than are paid at present. The shareholders may dismiss their apprehensions as to the new lease which will be required in 1887. — **R. SYMONS.**
Truro, March 7.

P.S.—Mr. W. C. Pendarves has shown a liberal spirit by granting a new lease to South Condurrow adventurers at 1-24th dues, the late dues having been 1-18th, and that is a dividend mine, and has been so for years.

DOLCOATH MINE.

SIR,—It is just a quarter of a century since a correspondence commenced for a renewal of the lease of the Phoenix Mine, near Liskeard, worked principally by Lancashire friends of mine, who were driven from the enterprise of mining by what occurred, but who were a party of rich men to whom mining was comparatively new, who could have at any time commanded for any enterprise introduced by them a million sterling. The modest demand by the then agent of the Duchy, Mr. J. R. Gardiner, was the same amount of royalty as in the then existing lease, and one clear quarter of all profits in addition. Mr. Gardiner, with the same modesty, remarking that under the circumstances a much larger proportion of profits could be fairly demanded. These terms were instantly declined by the committee, and the correspondence terminated by the dismissal of Mr. Gardiner by the Prince Consort and Duchy council. This act of the Prince and council did great good for the Duchy and the mining public, and if so good an example were instantly followed up by Mr. Basset it might put a stop to agitation for royalty to be paid out of profits, and cause many thousands of pounds a year to flow into the pockets of the landlords beyond what is considered by the majority of mining men to be their fair right. In 1836 I conducted Sir H. de la Beche and his attendants over the first mine I ever had charge of. In his remarks upon the royalty paid he stated that one-fifteenth which we were paying was equal to one full quarter of all profits in the best dividend mines, and this he has recorded in his published work of 1839, one of which was presented to me.

I have before me a list of 160 mines, employing 28,000 people, as stated by him. Of these 30 were, or had been, paying dividends; most of the others had scarcely paid the cost of working, and many of them were losing large sums constantly, and yet on they went working, with no benefit to those who invested their money, but paying royalties notwithstanding all the time to the landlord. Just picture to yourself Sir H. de la Beche contemplating with wonder the extraordinary love of enterprise which sustained such a state of things, with the landlords receiving quarterly large sums from the adventurers, many of whom tradesmen of the neighbourhood of the mines feeling most severely the inconvenience of paying calls, while the miners in scores of instances were struggling at their tribute pitches, and earning insufficient for the support of themselves and families, their small earnings being lessened also by exacting royalty to landlord, thus shareholders and workmen all struggling to make up an income to the landlord who risks not a shilling.

Can Mr. Basset, who has plenty of time on his hands for reflection, afford a little of it to calmly view the picture which is presented by Sir H. de la Beche, of these poor people all striving for the benefit of a landlord, whose agent would dare threaten, through the Chairman of the Committee of Dolcoath, that they must take care they are not landed in Chancery? Why, the landlord must take care for himself that he is not landed in a lake, not of fire, but of water 400 fms. deep, with a pressure of 70 tons upon every square foot of its bottom. Should he ever by imagination bring himself to feel the pressure of this lake of water for a few hours, and then draw a comparison between that and the pressure of the poor men throughout the district under the weight of a wife and family of children, driven by the acts of their landlord to fly from their native country to seek bread for their families in a foreign land, where by skill and past experience they assist to send over to old England the foreign production to further depress, if not ruin, his native country. Can Mr. Basset grasp with his mind's eye all the surrounding mines, with this deep lake of water in their midst, and all the men who are left to struggle driving nearer and nearer every week towards this deep lake, until at length alarm is spreading far and wide at the possible consequences to these men, whose lives are being endangered, as they may at any moment tap the lake, which extends for miles, and sooner or later the result must either be abandonment or they go on to certain death. Would not Mr. Basset rather defer such a disaster till a little later in life; and would he not rather feel, if it should come, and it must come sooner or later, that he had not been, directly or indirectly, the cause of driving those men from their homes, who all their lives long have in every position they have occupied been adding to the income of the landlord of the soil—himself first and foremost amongst those benefited. Why, Sir, Dolcoath has been for more than 150 years, pouring into the lord's pockets large sums of wealth yearly.

It is stated that as far back as 1718 these royalties were being poured into the lords' pockets, without any risk, any exertion on his part, without any assistance from his purse; and in these early times one-fifth of all produce was the royalty payment. It has been set forth that a sum considerably exceeding six millions sterling has been produced from this grand old mine. Why, if an average royalty of only one-fourteenth all the time it would give the lord 428,571*l.* But in early times it was one-fifth of all produce, as stated by Sir H. de la Beche. What more would a landlord wish or expect? Nearly half a million from one mine. In the matter of buildings in such a neighbourhood land would not be charged more than 100*l.* per acre. It is said that the sett of Dolcoath is 300 acres, which at 100*l.* per acre = 30,000*l.*, and 3 per cent. is considered a fair payment on land, which would be 900*l.* a year; but the land in mines if destroyed is paid for independent of the royalty, so that in this case there does not appear that anything exists for the lord to fairly make his demand upon, that is, assuming the 300 acres have been paid for; but if it does exist the whole payment should only be 900*l.* a year instead of 9000*l.* All the mineral value is a creation of the adventurers, or resulting only from their outlay. The specious absurdity of Mr. Marriott attempting to make it appear that the Dolcoath Company had expended no capital—as he says, "had not expended a penny"—is too ridiculous to comment upon. The market value of the mine—say, 250,000*l.*—it is fair, in the

first place, to charge interest for capital, say, 5 per cent., which would leave only 2 per cent. as profit, while the landlord gets 9000*l.* a year without risk or outlay, and for this he is indebted to a good manager and the committee.

There are so many risks in keeping a mine of such magnitude in full work that one may wonder at the regularity with which the returns are kept up. Accidents of all kinds are provided against, but no blame would be attached to the manager if one of a most disastrous nature should occur; and assuming such as happened to Wheel Rose, filling the mine with water, and thus closing it for ever as a mine. Such is possible, though I trust very improbable. But nothing except good management and strict supervision will keep this great mine steadily in progress for the term of another lease, and if any serious accident should happen to cause the mine to be filled with water after what has taken place no men will be found in England to provide the means of draining it, so I conclude, if Mr. Basset is as clear-headed as I understand him to be, that he will quietly remark to Mr. Marriott, "I feel that the language of Messrs. Wickett, Heard, Rogers, Rich, and Grylls at the meeting on Feb. 27 has convinced me that matters have proceeded far enough, and the sooner we accept the offer made by the committee the better, for I see breakers ahead, and would be glad to feel myself in smooth water." I hope it is not too late for such a result.

March 7.

— **CHRISTOPHER ROBINS.**

DOLCOATH MINING COMPANY.

SIR,—Having heard from a friend residing in the neighbourhood of Dolcoath that my name has been freely mentioned in the county of Cornwall in connection with the purchase of the Dolcoath Mine, I take the earliest opportunity to give this rumour an unqualified denial, and to state that I have neither directly nor indirectly entered into any negotiation with any person or persons for, or in connection with, any such purchase.—*London, March 9.* — **PETER WATSON.**

DOLCOATH MINE, AND THE NEW LEASE.

SIR,—Although not a shareholder in Dolcoath Mine, I have followed with some interest the proceedings in connection with the proposed renewal of the lease, and I must confess that I cannot see that Mr. Basset or his advisers are to blame in asking as a premium a money payment or an alteration in the future royalty. It should be borne in mind that Mr. Basset has a perfect right to make such terms as he may think best in his own interest, and that it is quite within his power to say, "I will not grant a new lease on any terms, and that I propose on the determination of your grant to develop the property myself;" but although neither one or the other is probable, it deserves full consideration when discussing the proposed terms as submitted to the shareholders.

On reading the remarks of some of the adventurers present at the meeting the other day, it was stated by one or two that they had purchased shares in the full confidence that a new lease would be granted according to custom; but I question very much whether at the time a renewal of the lease ever troubled them, or that it was referred to in any way. The proposition to take away the ore within the next four and a half years was a most injudicious one, and should not have been made; it will do no good to the cause, and an injunction in Chancery would pretty soon put a stop to any unfair or unminerlike operations.

I have always thought, and think so still, that it was never the intention of Mr. Basset to enforce the penalty emanating from the Tehidy office, and I have a notion that it is more with the effect of bringing about a better system of management generally. Mr. Basset's advisers are probably alive to the fact that dividends have sometimes been paid out of money advanced by the company's bankers, and that it is not unusual to take nine and 12 months' credit from merchants, from which it is only fair to assume the shareholders have to pay smartly. I believe it is well known that the principal shareholders, or most of them, are closely allied to either the banking, supplying material, or building interest. To endeavour to effect a change in this direction would undoubtedly cause some consternation in the camp; but in the interests of the shareholders it should be amended and in a new lease a covenant might be inserted to their advantage. A mine in the position of Dolcoath should be compelled to sell all their produce by tender or ticketing, to pay all merchants' accounts monthly under discount, and all material tendered for, and under no circumstances should dividends be paid except from money actually at the bankers. I am aware this would be a new element in mining; but to give confidence to investors it should be strictly adhered to. I have no doubt it will be said that were Mr. Basset or any other landlord to exact these conditions we should hear much about coercion; but, as we have already found elsewhere, coercion oftentimes becomes a necessity. As the lord of the manor of Tehidy, I venture to say that Mr. Basset would wish to see Dolcoath retain its position as the leading mine in the county; but to take the lead it should set a good example. I have no figures to guide me in making a calculation as to what would be a fair return to Mr. Basset for granting a new lease, say from the present time; but as no definite proposition has been made to him by the representatives of Dolcoath, the following appears at first sight to be a fair arrangement:—A new lease to be granted for 25 years from Jan. 1, 1883; 1-15th royalty to be paid until 20,000*l.* has been divided amongst the shareholders, then 1-12th royalty till remainder of term. A payment of 20,000*l.*, to be paid at the rate of 1000*l.* a year in two instalments if thought desirable. I believe the assent of every shareholder would have to be obtained to the determination of the present lease; but were terms agreed upon between the grantor and the committee acting for the shareholders, I should think no one would attempt to block the way.

London, March 6.

— **MINER.**

DOLCOATH MINE.

SIR,—I do not agree with the tenor of Mr. C. Robins's letter inserted in last week's Journal. In an argument as to what is right or wrong there is always two sides to the question. As one interested in mining I disapprove of the 40,000*l.* premium, seeing that there are 4½ years to run of the present lease; but as the shareholders wish to secure a renewal of the lease I should not see any objection to a premium being paid for a new lease, "if granted at once," of (say) 5000*l.* Premiums for mining grants are not new, therefore I would approach Mr. Basset and his steward in a conciliatory manner, and would make, according to the present state of mining in Devon and Cornwall, a fair and reasonable proposal, which, if not accepted, I would throw my "hat into the ring," and declare war. I would not advise payment of 1-12th royalty, I would stick to the 1-15th.

I entirely disagree with Mr. C. Robins's tactics in comparing Mr. Basset to the Irish Land League. How does he know but that the idea of "40,000*l.*" may have originated in Mr. Basset's mind first, it being an axiom that the larger the heap the greater the desire to increase it. Nor would I refer to the steward as a narrow-minded agent whose grovelling stewardship never assisted the enterprise which has increased the income. I would use all fair and honourable means to obtain a modification or withdrawal of the terms demanded, believing that 1-15th royalty should be the standard. I take it for granted that, after reading Mr. Robins's letter, of course he is a very liberal gentleman, and were he lord of the manor he would grant a new lease without fee or reward.

If Mr. Basset and his steward consider the Dolcoath shareholders are getting too much profit out of the mine I would suggest that he becomes a shareholder as well as lord of the land. Let him purchase one-fourth of the mine; he will then be entitled to one-fourth of the profit as well as the 1-15th royalty. In making the last suggestion, how is it that very few landowners are shareholders in mines on their own lands? Because of liabilities that might in some instances be made, and they are quite right to avoid such contingency in some instances. Instead of threatening landowners with a miners' league, better let every miner and mine adventurer interested in mines in Devon and Cornwall petition the Legislature to amend the Stannary Laws, so that every shareholder should only be liable to the extent of their holding. With such alteration we should have landowners and other shareholders in mines who now will not join for fear of having to pay unknown liabilities. With such an alteration in the Stannary Law mining as an investment would become

popular with a wealthy class of persons, who now look at a miner or a shareholder in mines as a person to be avoided. I wish to make one further remark, that if the Stannary Law is altered and shareholders are only liable to the extent of their shares, it will have the effect of extending what I may term the St. Agnes system—that of ready-money and no liabilities—as shown in the result of the various mines in that important district, under the chairmanship of Mr. J. B. Reynolds.—*March 7.* E. ERWEN.

PRINCE OF WALES MINE, SILVER HILL, AND DRAKE WALLS—NEW LODES, &c.

SIR,—Every experienced miner is always on the look out for new lodes, because the old adage, "Ore opposite to ore," has generally led to successful results—for instance, the discovery of the Bridge lode, parallel to the old rich Marquis lode, in the Bedford United Mines, has done much for the Tavistock district, and similar explorations have largely increased the popularity of the St. Agnes district. Many years ago I was a shareholder in Drake Walls; here the lode is very large in certain places, and full of small veins and strings of tin ore, and I am gratified to see it mentioned in last week's *Mining Journal* that the deep adit (a grand undertaking) has at last reached the distant shaft. My chief object, however, in sending this letter is to ascertain if any old miner has ever heard of a very rich copper lode in the north part of the Prince of Wales Mine, which is not far from Drake Walls, because a few years ago a gentleman (a first-rate miner, too) stated at the meeting "that he had just visited the Prince of Wales Mine, and had discovered another lode further north—further, indeed, than anything ever seen in that district." He goes on to remark "that he had no hesitation in saying that, even including that discovered in Hingston Down, he never saw the back of any lode which presented such favourable indications as that further north of the present north lode." Nothing can be plainer. "He saw on the back of that northernmost lode rocks of unusual size. He believed the junction of the three lodes (a most important point) would be reached by a continuance of the cross-cut." To which another gentleman, also a first-class miner, replied "that (reasoning by analogy) the point referred to was the richest part of the sett." Another speaker added that at that time they had driven 70 fms. through a course of ore, 50 east and 20 west, at the 40; that the shaft was in the centre of the sett, and that they had every reason to hope there would be a great course of ore both east and west." Further, it may be mentioned, that at Silver Hill, close to the Prince of Wales Mine, there is another deep adit, which in the course of time will intersect all these lodes. Lastly, that at Langford the great mundic and copper lode, which dips north, will very shortly enable some of the old silver miners to exclaim "What blessings for me to have seen what I have seen, and see what I see!" I am not a shareholder in Langford, but I feel assured that a good discovery there cannot fail to encourage my coadventurers in the Harrowbarrow neighbourhood. See *Mining Journal*, 1867, page 804. *March 8.*

OLD AMATEUR.

ST. AUSTELL MINING DISTRICT.

SIR,—A brief notice of the mines situate between Fowey Consols, inclusive, and Great Dowgas Mine, may be interesting to some of your readers.

Fowey Consols was worked 50 years, during which period the mineral sold (copper ore), realised 1,000,000*l.* sterling, of which 220,000*l.* was divided between the shareholders as profit. The late Mr. J. T. Treffry had one-half of the shares. All his profits were applied to railways and other useful works.

Par Consols, situate in St. Blazey, was opened by Mr. Treffry, who gave shares to his friends, who never paid a shilling cost on them before profits were made. The profits were 250,000*l.*, the major part of which I believe belonged to Mr. Treffry.

East Crinnis, in St. Austell, worked by Messrs. Taylor and Co., yielded a profit of 110,000*l.*

Old Pembroke was worked by the same company as East Crinnis, and is said to have yielded 100,000*l.* profit. It is contiguous to East Crinnis.

From Old Pembroke, a cross-cut was made north to New Pembroke, where they found maleable copper, from which they profited in three years 7000*l.*

Old Crinnis was worked about 65 years ago by Messrs. Joshua Rowe and Co., who gained 200,000*l.* by the works. The mine is situate west of Pembroke.

Appletree Mine, west of Old Crinnis, was a rich mine during a period of seven years, but the amount of profit divided I cannot state.

West Mount and Puckey's North Mines in St. Blazey (portions of Par Consols) were very rich for tin when the other part of Par Consols was rich for copper.

Wheal Eliza, in St. Austell, a tin mine under the direction of Mr. R. H. Williams, C.E., has been yielding an annual profit for several years of about 20,000*l.*, and is now rich.

Beacundle when worked by Messrs. Taylor was rich for tin. Copper ore also was raised in abundance; 80,000*l.* worth was raised in about two years.

Charlestown United (anciently Buckler's Mine) was worked by Messrs. Taylor for many years with profit. In one month 99½ tons of black tin were sold from the mine. This mine is now in the hands of Mr. R. H. Williams.

West of St. Austell there are also valuable mines. Old Polgooth, in the parishes of St. Austell, St. Mewan, and St. Ewe, has been worked by successive companies for hundreds of years at immense profit. The Messrs. Taylor, during a lease of 21 years, gained 100,000*l.* The present workers have not more than one-third of the area of the old company. The remainder is granted to three or four other companies.

Polyare, adjoining Polgooth, and having the same lodes, is a highly promising young mine, worked by Capt. John Edwards for tin. It deserves a spirited working.

South Polgooth United, south-west of Polgooth, is a tin and copper mine worthy of further development.

Old Hewas Tin Mine, which is situate in the parishes of St. Ewe and St. Mewan, was worked under the management of Messrs. Samuel Lyle and Joseph Malachy for a period of about seven years. In that time they returned 4700 tons of black tin, which was smelted on the mine. It ceased to be worked by them in 1822 owing to extravagant management. This mine would well pay for re-opening; depth on the average only 71 fathoms under adit. The deepest shaft (engine) is 136 fathoms.

South Hewas was worked with Old Hewas, a flat rod being connected with the engine there and the shaft here. The produce was tin and grey copper ore; the latter sold at 36*l.* per ton.

South from South Hewas Mine, situate in the parish of St. Ewe, is Pengelly Nickel and Copper Mine, which is about to be re-worked. It has been idle 38 years. The depth is only 30 fms. under a 10 fm. adit. Here are several lodes yielding nickel and copper ore; 1400*l.* worth of nickel raised by four men in five months was sold, and the copper ore raised was sold at 14*l.* 6s. per ton. The prospects, particularly as regards nickel, are so good that investors may fairly be encouraged to lay out a few thousands in developing the lodes.

Immediately southward from Pengelly is an antimony mine called Trudgeon, whence a large quantity of that mineral has been sold.

King's Down Tin Mine, in Creed, is contiguous to Old Hewas, and having Hewas lodes. It was set to work last summer, and tin has been sold. It presents good prospects which warrant a spirited working.

Wheal Elizabeth lies immediately west of Old Hewas, and is on the same lodes. It was worked therewith by Lyle and Co. It is now a separate sett. The engine-shaft is 70 fms. deep, with a good tin lode in the bottom.

St. Austell Consols, in this district, yielded tin, copper, and other minerals, from which at one time considerable profit was derived.

Great Dowgas, both a tin and copper mine, was set to work by Malachy during his possession of Great Hewas. As much as 300 tons of copper ore were weighed off at a time—the produce of the north lode. The depth is only 40 fms. below adit. Here is a fine field for further operations.

Lanjeath Moor is a mine set recently taken up by Mr. F. Williams, o Sticker, near St. Austell. This is a property worthy of attention.

Crugwallians is a mine east of Lanjeath Moor, worked by an adit level about 100 years ago. Several lodes pass through these lands, which warrant an outlay in testing them. The ancient pits on the backs of the lodes indicate their courses. I have been informed that this belongs to the lessee of Lanjeath Moor. *Truro, March 6.* R. SYMONS.

TIN MINING IN THE TAVISTOCK DISTRICT.

SIR,—This district, embracing the celebrated Old Wheal Friendship, Crowndale, Crebor, Bedford United, Devon Great Consols, Wheal Russell, and other copper mines, has never until now yielded tin in any lasting quantities. The published weekly reports from the managers of Anderton and Sortridge Consols have, however, led to the full expectation of great results from the continued discoveries at various points of operation in both of these mines. On a rough calculation that the ground on being stoped proves equal to only one half the fixed value of the lodes reported upon in the different drivages, for a considerable period immense quantities of tin will at once go to market. Capital for the laying out of dressing-floors on an elaborate scale, and the erection of powerful water and steam machinery to cope with the prognosticated raisings has been voted, and great and regular returns from these mines are looked forward to throughout the whole neighbourhood. *March 3.* OBSERVER.

WEST KITTY MINE.

SIR,—At the present crisis extracts from Capt. Hambly's report, after a careful inspection of this mine, will no doubt prove interesting to your readers. He says:—I have inspected West Kitty three or four times, but at no former visit have I been better pleased with the prospects than I was on Thursday last, March 1. It is cheering to know amid the stagnation in the Mining Market, and the losses and calls recently reported at many mine meetings, that there is such a good dividend mine as West Kitty. The deepest operations on the lode are in the 80, where on the run of tin ground being reached a lode similar to the one in the levels above (hereafter referred to) may be expected. The 72 is extended east of the shaft 60 fathoms, or from the main rise 40 fathoms. The lode for the greater part of the drive from the main rise has been very good, varying in value from 20*l.* to 100*l.* per fathom. About 9 ft. from the present end there is a crossing, which has had the effect of shifting the lode some 2 fathoms to the south. Beyond this crossing the lode has an improved appearance, and is worth 25*l.* per fathom. The 60 is extended east of the main rise to the cross-course and 2 fathoms beyond it. The whole of the drive from the main rise has been in a magnificent lode, similar to that passed through in the 72, thereby laying open a very fine section of stoping ground. The character and composition of the lode are all that could be desired, and would be worth for its width when carried 20*l.* per fathom. The 60 east from the cross-cut, south of engine-shaft, is within 3 fathoms of communication with the main rise. The lode in this drive has been from 3 to 4 ft. wide, and worth from 10*l.* to 15*l.* per fathom. The communication of this 60 end with the 50 rise should be effected in about a month. This will be of great advantage, as increased ventilation will be afforded, and the ground east of the main rise, over the beautiful bunch of tin seen 20 fathoms below, in the 60, will also be tested. The 60, west of cross-cut, is extended 15 fms.; the lode has been uniform in size, and worth on an average from 12*l.* to 15*l.* per fathom.

With such valuable deposits of tin as have been referred to the ends necessarily produce good quantities. But largely increased returns may be obtained from the stopes now available, three of which are being worked—one in the bottom of the 50, west of the main rise, worth 70*l.* per fathom; one in the bottom of the 60, east of the main rise, worth 30*l.* per fathom; and one in the back of the 72, east of ditto, and worth 40*l.* per fathom. There is a piece of very fine ground in the back of the 60 east, but how high it extends remains to be seen; this will be tested by the level driving east 20 fathoms above it. There is also a good piece of stoping ground made available by a rise from the 72 to the 60, near the eastern crossing. These points, to say nothing of further discoveries by developing the mine, will continue for a long time to give as profitable results as are being realised. In closing my remarks I would point out the very important piece of ground now standing east of the present ends to the boundary, some 40 fathoms in length, and inasmuch as the ends westward to this boundary in Wheal Kitty were rich there is every likelihood of this being a most valuable and profitable piece of ground. The tin already discovered in this mine will admit of returns considerably in excess of those being made, and with increased means (which are being provided) for treating and burning the ores I see no reason why West Kitty should not go on increasing its returns for a long time to come. EXCELSIOR.

WHEAL COATES.

SIR,—Some shareholders probably scarcely appreciate the importance of the fact that the West Kitty flat lode and other valuable lodes exist, and that progress is being made to open them at different levels; while returns are being made from lodes already opened, and worked upon that gives a produce within a small sum of paying the whole cost of the mine. One reason may be stated for the low price of shares that the large shareholders possessed. It is strange, indeed, that mines upon the same lodes having no such valuable prospects, and not producing one-half the quantity of tin monthly, with not half the plant, or half the extent of tin ground opened up are selling at three or four times the amount as Wheal Coates, and that, too, while under the same management. This will quickly change one of these days, and the shares of Wheal Coates are likely to stand side by side in value with West Kitty. *March 3.* R. S. O.

COPPER ORES IN NORTH WALES.

SIR,—It may be interesting to some of your readers to know that this branch of mining is likely to be revived, and that with successful results. In the Maudslay Mine, on the south-west side of the Great Snowdon Mines, the Maudslay lode was last week intersected in the new adit level, showing rich black, grey, and yellow copper ores of 12 to 15 per cent. fine copper, and daily improving as we advance. In the Sygun Mine, belonging to the same spirited proprietor, the No. 2 adit is driven into the main lodes 100 fms., with backs to work upon of 100 fms., tramways laid, &c., and preparation is being made to put up suitable dressing machinery. Stoping has commenced, and a sample of the ores average 15 per cent. of fine copper. This lode stands whole over head to surface 100 fms. *March 7.* CHAS. KNEEBONE.

EAST DEVON CONSOLS COPPER MINE.

SIR,—Sometime ago I sent a letter to the *Journal* asking if any shareholder could give some information as to what was being done at it, but beyond a few lines from the manager which appear from time to time in the *Journal* stating that their prospects never looked better, &c., I have got and can get no information. No wonder there is no market for the shares if matters connected with the mine are kept so much in the dark. Other companies have meetings of their shareholders, to whom the accounts are submitted and all information that is necessary to be given as to their position divulged, but as far as the East Devon Consols is concerned the shareholders know nothing. Let the secretary get a report drawn up stating what is the present state of affairs, and print it in the paper; when if it is favourable the attention of the public will be attracted to the shares.—*Dundee, March 7.* A SHAREHOLDER.

EAST CHIVERTON MINE.

SIR,—The readers of the *Mining Journal*, and especially those connected with this mine, will be glad to read the very encouraging report from Captain Southey of the unexpected north and south lode out in the 100 fm. level west. We had the pleasure of visiting this mine professionally in January last for some of our friends, but were prevented entering the underground workings owing to the presence of water caused by the breaking of the pump rod; but had the satisfaction of seeing and carefully examining several specimens of the ore from the north and south lode, which, in our opinion, was

rich in value, and must we are sure make this mine an investment of no mean value.

After carefully examining the places and sections, we then viewed and inspected the surface arrangements, which consist of a 52-in. pumping-engine, a winding engine (just erected), dressing-floors, &c., the whole put up in a very substantial manner and are in very good order. Altogether we were much impressed with the mine, and with good management, and we believe Capt. Southey to be the right man in the right place, there is a good future in store for the shareholders. ROBT. C. FISHER AND SON.

COLORADO UNITED MINING COMPANY (LIMITED).

TO THE SHAREHOLDERS.

GENTLEMEN,—You will doubtless be anxious to know the result of the meetings which were held on the 6th inst. The resolutions, as stated in the notice, were as follows:—

The business to be transacted at that meeting consists of the following resolutions:—

(1) "That the meeting approves of the board declaring and paying an *ad interim* dividend as soon as the funds now in hand, and the remittances which are expected from Colorado, permit of a distribution out of net profits, after the payment of the liabilities in England."

(2) "That a committee of advice be appointed to confer with and advise the board as to an examination of the mines and investigation of the company's accounts in Colorado by a competent and trustworthy person in accordance with Mr. Hamill's request."

The directors suggest that this committee be composed of shareholders who have recently taken an active part at the meetings of the company, among whom may be named Mr. Smyth, Mr. Aston, Mr. Fitch, Mr. Staples, Mr. Arthur, Mr. Montefiore, and Mr. Labouchere, M.P.

(3) "That in Article 70 the word 'eight' be substituted for 'five,' and in Article 82 the words 'eight' be substituted for 'five,' and '1600' for '1000.'"

The first and second of these resolutions were carried unanimously, the former being 1s. per share dividend. With regard to the third resolution, it was merely read; but the Chairman said "he did not intend to put it to the meeting," or in plain words the directors obtained proxies on the faith of a notice conveying a policy which they never intended to carry out.

After a lengthened discussion and much loss of time the adjourned extraordinary general meeting, which took place on Dec. 4, 1882, was held. The objects of this meeting, as stated in the requisition, were:—

"To elect one or more additional directors, and to make such alterations in the Articles of Association as may be necessary for that purpose."

"To resolve that monthly accounts of the working expenses and sales of produce be supplied to the shareholders."

The poll which was on Dec. 4 demanded by myself upon these resolutions, and promised to be given in February in accordance with Mr. Montefiore's amendment of Dec. 4, was refused. Had the poll been taken the result would have led to the retirement of the directors, because the resolutions were supported by proxies in my favour representing 24,000 shares.

An amendment was then proposed by Mr. Thomas W. Burton (2000 shares), to the following effect:—"That the board as at present constituted is not satisfactory to the shareholders, and that the following directors be requested to resign:—Mr. W. Fraser Rae and Mr. C. F. Montefiore, and that the following gentlemen be and are hereby appointed directors:—Mr. J. H. Fitch, 510 shares; Mr. J. Stratton Thompson, 400; Mr. Robert Skilbeck, 800; Mr. Thomas Steven Lindsay, 671; Mr. Archibald J. Smyth, 400. Also the following old directors:—Major-General the Hon. W. A. Feilding, 800 shares; Mr. A. Holtz, 1000; Mr. W. J. Alt, 200."

This amendment was seconded by myself. The Chairman, however, abruptly closed the meeting, but not before I had put the same to a show of hands, and I am happy to say that there were only five against it.

I, therefore, fail to see how any gentleman can legally or morally hold their seats in face of this, and contrary to the wishes of a large meeting, or the votes duly registered for 24,000 shares.

As I have proceeded so far in this matter, and the course adopted by the Chairman at the meeting yesterday cannot be considered respectful towards the shareholders who have supported me, and considering that the promised dividend may be fairly looked upon as resulting from the determination evinced by the shareholders to look more closely into the business of the company, I trust for your continued support, for I am convinced that if the company's operations be closely looked after, larger profits will be made and dividends consequently increased. ARCHD. J. SMYTH.

Tokenhouse Yard, March 7.

FOREIGN MINING AND METALLURGY.

The French Legislature has begun to occupy itself with the somewhat extensive question of the Canal du Nord. The preliminary official enquiries have been completed and the necessary plans and estimates have been prepared; it now only remains for the Chambers to approve the necessary credits to ensure the execution of the work. The canal will reduce the distance from Lens to La Villette from 213½ miles to 153½ miles, while that from Denain to La Villette will be further brought down from 18½ miles to 150 miles. As the canal will be of somewhat considerable width it will be easy for boats to pass each other, and it will also be practicable to use small steam boats upon it. Its sluices will be doubled and its bridges will be so constructed that great facilities will be afforded for navigation. The saving in the cost of moving coal from Lens to La Villette by the canal is estimated at 1s. 9d. per ton. The German coal trade has been rather weak. Household qualities have been less sought after, and the reduction which has taken place in the German iron-works is also curtailing the demand for industrial coal. Since the commencement of the year quotations have fallen 2d. to 5d. per ton, except for coke, which has been well maintained. It appears that the imports of coal into Germany last year amounted to 2,090,622 tons, while the exports of coal from Germany last year, were 7,631,535 tons. The Belgian coal trade has continued tolerably firm. There has been it is true a slight fall in some descriptions of household coal, but industrial coal has been well supported. In the Coudant du Mons coal has ranged of late from 12s. to 14s. 6d. per ton.

A slight increase of activity noted recently in the Belgian iron trade has continued; although it has, perhaps, not become more decided during the last few days. Orders have certainly become a little more numerous, but still not sufficiently so to give to business an aspect of decided activity. There is one circumstance which may, perhaps, be regarded as favourable in connection with the present tendency of Belgian metallurgy; this is that the improvement noticeable in it coincides with the check of the retrograde movement which has been taking place in Germany and France. Pig has been generally firm upon the Belgian markets; the best descriptions have made 2*l.* 10s. per ton; ordinary pig, 2*l.* 6s. per ton, and mixed pig, 2*l.* 2s. per ton. English pig has not been very well maintained at 2*l.* 8s. per ton, and in the case of important transactions some reduction from this price would certainly be consented to. Prices have scarcely varied in the Luxembourg, casting pig having maintained a quotation of 2*l.* 10s. per ton, while refining has made 2*l.* 6s. per ton. There has been no important movement in iron; No. 1 has made 5*l.* 4s. per ton; No. 2, 5*l.* 12s. per ton; and No. 3, 6*l.* per ton; plates of commerce have brought 8*l.* 16s. per ton. A contract for 66 locomotive tenders has been taken by the Dyle-Bacalar Company. The tenders delivered ranged from 193*l.* to 202*l.* per tender. The workshops of the Dyle-Bacalar Company, being well equipped with tools, appear to have been enabled to secure the contract at relatively low rates.

Bars have made 7*l.* 16s. per ton at Paris. The Longwy Steelworks have just been brought into operation. The blast-furnaces have been fitted upon the Gilchrist-Thomas system, and the ingots produced show only slight traces of phosphorus. Experiments which

have been made show that the steel produced possesses resisting qualities which render it admirably adapted for the manufacture of rails. The downward tendency in the German iron trade appears to have been checked; although a revival in business is at present out of the question, the worst appears to be past, and a firm maintenance of current quotations seems likely to succeed the constant reductions in rates which have been taking place. The blast-furnaces have not been able at present to secure important contracts; at the same time, some small transactions have maintained them in activity, and the rolling-mills have also secured some orders. Plates have been well maintained for some little time past. A small adjudication for material has taken place at Cologne. Messrs. Stumm Brothers, of Neunkirchen, have taken 800 tons of steel rails at 77. 6s. per ton, while the Ruhrort Steelworks have taken 190 tons of special rails at 97. 8s. per ton. Messrs. Stumm have also taken an order for 178 tons of plates at 77. per ton. Puddled iron has been in increased request at Dusseldorf, thanks to the agreement arrived at between the producers of pig on the one hand, and different groups of proprietors of rolling-mills on the other hand. Bessemer spiegel pig has been rather depressed. The market for rolled iron and steel has been indecisive, but the general tendency has been rather firmer. A little more animation has been remarked in boiler-plates, although prices have not varied.

REPORT FROM CORNWALL.

March 8.—Dolcoath and its affairs still form the one absorbing topic, and there has gradually been growing up a kind of abstract belief—for there certainly was nothing to give it weight and authority—that Mr. Basset would give way on the point of surrender, and a compromise be effected. Perhaps this may be the result, but it is understood that the resumption of negotiations has been in a very informal way, and it is not likely that any definite settlement will be arrived at off-hand. In the absence of definite detail a lot of vague rumours has obtained circulation, and a foolish attempt has been made in some way to make Sir John St. Aubyn responsible for the Tehidy action, because he holds the nominal office of trustee of the estates. Of course the whole tenor of Sir John's career is utterly opposed to any such idea, and there is no need to go further than Mr. Marriott for the moving spirit of the whole business. Moreover, it is perfectly certain that, however ill advised he may have been, Mr. Basset is quite in a position to act independently if he will.

Possibly good may come out of evil, and as a result of this business the relations between adventurers and lords as to dues may be put upon an equitable basis. We think this very likely to be the result, but meanwhile the pinch is very severe. Mining just now has no one encouraging feature except the fine weather, which has very materially reduced the pumping charges. Generally we hear much more of losses than of dividends, and of stoppages and discharges of men than of enterprise. In some respects it is a gain that labour is once more plentiful, but the permanent advantage is very doubtful.

The question has been raised at Gunnislake (Clitters) of the desirability of a manager of a mine giving that mine his whole services, and the committee are going to give it full consideration. It is not a point to be settled off-hand. If an adequate rate of pay is offered probably little difficulty will be felt, but the agency charges as usually calculated now are wholly insufficient to retain the services of first-class men. Whether the adventurers will think the advantage derived by paying such salaries as will suffice to retain the best managers for their exclusive benefit will outweigh the economy of several mines combining in one consulting manager—which is practically the outcome of the present system—is very doubtful. Probably it would be better, as a rule, that each mine should have its own individual head, if it could be so arranged; though even here the value of the wider experience gained by connection with other concerns can hardly be estimated, and the more the matter is discussed the more difficult it will appear to lay down a hard and fast line. Only of this do we feel quite certain—that exclusive services will have to be paid for on a very different scale than the present rates of pay if the most capable men are not to be driven out of mining altogether.

TRADE IN SOUTH WALES.

March 8.—Continued activity is the marked character in the steam coal trade of the district. Prices are firm, and will probably continue so for some time. The report of the accountants, Messrs. Routh, Kirk, and Co., of Leeds, of the average prices of steam coal for the past four months, to the sliding-scale committee, does not justify any change, and therefore the colliers' pay will remain the same as at present. The dispute between the masters and men in the Forest of Dean regarding the 10 per cent. reduction continues. About 3000 men are out on strike. There is this to be said in favour of the masters, that they raise an inferior coal, which does not find a ready market except at a cheap rate, and they are thus forced to press, to some extent, on the earnings of the men. It is probable that the dispute will be settled by a compromise—the men accepting a 5 per cent. reduction, instead of 10. The small coal trade is not so good as it has been for some time past. The amount of steam coal shipped at Cardiff last week was 123,637 tons foreign and 22,534 coastwise; Newport, 31,370 tons foreign and 20,706 coastwise; Swansea, 17,764 tons foreign and 8609 coastwise.

The proprietors of the Coedcae No. 3 (house coal) Colliery, Rhondda Valley, have discovered a magnificent bed of No. 3 coal, 3 ft. 3 in. in thickness, of which they have secured a larger taking than that which they have been working, so that the prospects of the colliery are greatly improved, and the yield is likely to last an additional 20 years. The new taking lies in the direction of the Glyn, Caecurais, and Bwlchgwyn, and comprises a large bed, supposed to be surrounded by faults. On the one side Cilely Colliery tried to enter it, but gave up, on the other the Cymmer Colliery tried the same and failed likewise. After, however, getting through 42 yards of fault, the Coedcae Company succeeded in piercing the coveted seam, and found it to be fully equal to their anticipations—a splendid bed of coal, excellent in quality, easy to work, and remarkably favourable to the workmen. There are at present about 250 workmen employed at Coedcae No. 3, with an output of 300 to 350 tons per day, and as the output is likely to be soon increased to 450 or 500 tons per day, there must necessarily be an extension of operations in consequence of the above discovery.

During the latter part of the past week the workmen engaged at the Rock Colliery, being opened and developed by Messrs. Griffiths and Co., near the Old Waterloo Colliery, in the vicinity of Rhiw Lyr Dafydd, above the Rock, struck upon the Mynyddislwyn seam of coal for which they had been searching for some time past. The portion struck appears to be of excellent quality, and, as there is a large area unworked in the neighbourhood, the find of coal will prove very beneficial to the district.

The Messrs. Harris's Colliery, Quaker's-yard, has for some time past opened out very rapidly, as was evidenced by last week's output—6070 tons. Although the attempt to use double cages proved futile here, yet the Messrs. Evans and Davies, the manager and under manager, intend making another effort, and are confident of an ultimate success.

At Lewis's Merthyr Colliery, generally known as the Coedcae Steam Coal Pit, the works have since the explosion, which occurred about a year ago, been so far opened up again as to enable the proprietors to obtain an output of about 950 tons per day—without raising any at night—and, as this quantity must rapidly increase, the prospects of this colliery are magnificent. Then, at the Hafod Colliery of the same company, the present output—700 to 750 tons per day—is about as much as can be reached; but that, with the present output of 300 to 350 tons of the Coedcae House Coal Pit, makes the total production of the three collieries of this company—all within a stone's throw of each other—somewhere about 2000 tons per day. Add to this the prospective extension of operations at the Coedcae House Coal Pit, consequent upon the discovery reported elsewhere, and we have at this spot one of the grandest colliery properties in the Rhondda.

The iron and steel trades of South Wales remain very slack, and

prices are extremely low. Bars are quoted at about 57. 10s.; angles, 67.; plates, 67. 10s.; steel rails from 57. to 57. 10s. The inactivity at the works necessarily brings down the prices of iron ore, which stand at from 13s. 6d. to 14s. per ton, with a tendency to weakness at those rates. The amount of iron ore received at Cardiff from Bilbao last week was 15,800 tons, with 2332 from other places; Newport received 9024 tons from Bilbao, and 3,515 tons from other places. At Cardiff 4617 tons of iron were shipped during the week. The stoppage of another large tin-plate works will still further tend to reduce the output and maintain present prices. Good coke-mades stand at from 15s. to 16s. per box, and charcoal-mades from 19s. to 20s.; steel and stamping plates from 21s. to 23s. Tin is firm in price at from 937. to 937. 10s. cash.

Sir E. J. Reed, the member for Cardiff, aided by the Mayor, is making an attempt to bring about a better understanding between the Taff Vale and Rhymney Railway Companies, the trustees of the Marquis of Bute, and the projectors of the Barry Dock and Railway. His idea is that by moderate concessions in railway rates and dock dues the freighters may be influenced to abandon their project, and thus keep the trade of Cardiff in its present channels. The sacrifice demanded on the part of the Taff Vale Railway Company will be about 75,000l. per annum, and the Marquis of Bute is asked to forego about 25,000l. Mr. W. T. Lewis, the Marquis's agent, thinks that a basis of negotiation has been found, but the Taff Vale Company cannot decide anything until a meeting of the directors has been held.

Mr. James Colquhoun, jun., son of the respected general manager of the Tredegar Iron, Steel, and Coal Company, has been presented with a testimonial expressive of the very high regard entertained for him upon his leaving Tredegar to undertake the management of Sheepbridge Ironworks, near Sheffield. Some time ago a committee was appointed, with Messrs. Kerr and Bradley as hon. secretaries, and in a brief period upwards of 150l. was readily subscribed. The testimonial consisted of a beautiful clock, with ornaments, a silver salver, and a silver ten and coffee service, supplied through Messrs. Wintemante and Byers, of the Circle, and Mr. John Lewis, of Queen-street, Tredegar.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

March 8.—The better tone of last week in the iron trade is this week more marked, consequent in part upon the advance in raw iron prices in the Northern pig markets, and in part also upon the passing of the American Tariff Bill, which gives makers more confidence in the future of the export business. Pigs are in better demand than manufactured iron, and some Northampton brands have advanced 1s. 3d. per ton, making the current minimum price 46s. 3d., instead of 45s., as formerly. Derbyshire and Wiltshire sorts vary from 47s. to 50s. Native pigs more than hold their own, and the Willingsworth brand is quoted at 45s. Native all-mines remain at 65s. In finished iron sheets show most improvement. Some makers of galvanising sorts, indeed, are quoting an advance of 15s. a ton on singles. This makes the price 87., but it is not generally obtained. Enquiries from the United States have this week reached some of the best sheet and tin-plate workers by cablegram. The manufacturing coal trade is without improvement. Good mill coal is quoted at 8s. per ton at the pits, and good forge coal 7s.

At a monthly meeting of the Mines Drainage Commissioners in Wolverhampton, on Wednesday, the Chairman stated that on the 25th inst. a new powerful pumping-engine would be in operation at Stow Heath. He believed, too, that in about three months from thence the unwatering of the Bilston would be actively begun. Touching the recent loan of 100,000l. from the Public Works Loan Commissioners, he thought that the rate of interest agreed upon would probably be reduced. The Commissioners passed a resolution empowering their financial committee to bring about such a result if an opportunity presented itself to them.

Owing to an outbreak of fire in the workings at the Pelsall Hall Colliery, Pelsall, belonging to Mr. T. Starkey, it has been shut down. The fire was discovered on Sunday afternoon, and 25 horses which were in the pit were safely got out. Large supplies of water were pumped into the pit, but as no appreciable progress was effected it was determined to close the pit for a week. It is believed that the fire has arisen from spontaneous combustion, at a point where the pit had been dried and heated for some time by pipes which conveyed steam from the surface to an engine used in drawing the tubs up the inclines in the workings. Some 220 workmen are thrown out of employment.

The annual conference of the Midland Counties Federation of Miners was opened on Tuesday, at Hanley. Delegates representing 64,000 men were present from South Staffordshire, Worcestershire, Salop, Forest of Dean, Derbyshire, and North Staffordshire. A resolution was carried sympathising with the 4000 miners locked out in the Forest of Dean, and deciding to support them if the employers do not agree to a settlement by arbitration or conciliation. The secretary's report stated that since the last conference the Federation had successfully resisted a general notice for a reduction of 10 per cent. A resolution was passed condemning unskilled labour in mines, which it was said was the cause of more than three-fourths of the total number of colliery accidents throughout the county.

The directors of Muntz's Metal Company have resolved to recommend a dividend for the past year at the rate of 10 per cent. per annum, carrying forward a considerable sum to the credit of the current year's revenue.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

March 8.—The Iron Trade of Derbyshire continues in a tolerably healthy state, for there has been no decline in the production of pig, whilst in addition to the large quantity that is consumed at the local works a fair business has been done with Staffordshire grey qualities for forge purposes, selling at about 48s. per ton. At the foundries about the average trade for the season has been done, but an improvement is now looked forward to, for this is the time when there should be a good demand for nearly all kinds of pipes and some descriptions of heavy castings, for which some of the large foundries—such as that at Staveley—are noted. In rolled iron little or no change, and the leading works have for a considerable time done less than was formerly the case. On Saturday last the works at Dronfield—commenced about 10 or 12 years ago by Messrs. Sutton and Cammell, and recently purchased by Cammell and Co. (Limited), of the Cyclops Works, Sheffield—were closed, the last rail being rolled in the presence of a number of gentlemen. Preparations have since then been made for removing the plant to Moss Bay, near Workington. A tea was given to the workpeople, when it was stated that they could offer their services for the new places. Notices were also posted stating that a considerable number of the men would be required to take down part of the plant and remove it, and also fix it at the new works. This will find employment for a good many hands, and it was expected up to a recent period that all would be in operation in May; but this is scarcely likely to be the case, seeing that, although a large number of them are employed, yet the weather has been against building operations. However, when all is ready there will be plenty to do for a large body of workmen in connection with both the converters and the rail mills, for there will be the large Australian order to go on with amongst others.

At the collieries in Derbyshire trade has fallen off as regards house coal, and not so much has been done with the Metropolis of late, so that short time is the rule at a good many mines, and will before long be general. Still the men appear to be anxious to have a change of some sort, and have lately held another conference in favour of working only five days a week, a position, in fact, in which most of them are now in the enjoyment of, and if short time is a pleasure to them they are likely to have a good deal more of it as the fine weather gets nearer. Already prices have a downward tendency, and they promise to be lower than they now are before long. Steam coal has been going off tolerably well, but not to any thing like the extent that could be desired, and this will continue to be the case until such times as there is a better route than there now is to a seaport for shipment. The hard coal is of excellent quality,

and most suitable for sea-going steamers, and as such would be appreciated were it able to reach a place of shipment. Engine coal has been in tolerably fair request, but less has been done with respect to gas qualities.

The heavy branches of trade in Sheffield continue active, but in some of the lighter ones there appear to have been a falling off. Makers of both Bessemer and crucible steel have been well employed of late. With respect to the former, although a large proportion of the output is converted into rails, yet a good deal is made of special qualities for tool-making and other purposes. Cast-steel is being extensively absorbed in the making of axles, tyres, and wheels. At the leading works, however, the greatest activity is in connection with armour-plates, for which there are heavy contracts in hand for our own and other Governments, and in all probability will scarcely be completed by the end of the year. Other descriptions of plates and sheets are also in steady request. Steel rails are as brisk as ever, but it may be said that some of the firms that two or three years ago done a good deal in them have given over the trade, seeing that the competition has brought down the prices to such a low point that the inland manufacturers cannot compete abroad with those whose works are close to the seaboard. It is this reason, indeed, that has led Cammell and Co., however, to transport the works so long carried on at Dronfield into Cumberland. A good business is doing in other descriptions of railway material, including tyres, axles, springs, points, and wheels. Makers of sheep-shears are now working well, and the edge tool branches are brisker. General outlery is scarcely in such good request as it was some time since, but the leading house engaged in the production of the best qualities of table, pocket, and other knives, such as Rogers, have plenty to do, whilst most of the razor firms have good orders in hand. Some of the founders are better off than they were in the earlier part of the year, more especially as regards stoves, kitchen ranges, and pipes.

House coal at the collieries in South Yorkshire has fallen off in demand during the last week or two, and prices of it have become lower. There has, however, been a rather better enquiry for steam coal, and more is now being forwarded for shipment to Goole and Hull. The Dodworth Silkstone Colliery, after being stopped for a long time, has been opened out, and it is expected that before long some hundreds of miners will be again employed at the place.

TRADE OF THE TYNE AND WEAR.

March 7.—On Saturday another meeting took place at the Coal Trade Office, Newcastle, between the Coalowners' Committee and the representatives of the Northumberland miners with respect to the fixing of a sliding scale for the regulation of wages. No settlement was arrived at, and another meeting will be held shortly, when it is expected that some progress will be made towards a settlement of this important question. The general coal trade of the district has been fair, and as the Baltic and Northern ports generally are expected to open shortly the prospect for best steam coal is encouraging; the demand for second class steam at present is only moderate. The weather is very favourable at present for shipping, and freights generally are very low, and this must stimulate shipments of coal, iron, chemicals, &c. There is still an excellent sale for steam small, and the demand for gas and house coal also continues fair considering the season. The demand for coke for shipment is rather quiet, there is a falling off in Spanish orders; these it is feared are being sent into French hands at higher prices through treaty clauses between the two countries. These Spanish treaties are well known to be adverse to the trade of these rivers with Spain. Coal shipments at Tyne Dock, although a good average, show a slight falling off compared with previous weeks; this is mainly owing to a slightly decreased demand for gas coals. The main staiths and shipping places on these rivers, however, show no falling off. There is an excellent demand for fire-bricks and all fire-clay goods, and for cement at present. The increased demand which sprung up some time ago for chemicals in these rivers has been well maintained, better prices have now been established for most classes of chemicals, and this trade, which has suffered some years of very severe depression, has now an encouraging aspect. The Northumberland coal trade dispute between the miners and coalowners in this county was amicably settled on Monday by a joint committee. An immediate advance of 2½ per cent. has been conceded by the masters to surface and underground men respectively, and also a new sliding-scale upon an improved basis.

An extraordinary accident occurred at the Ryhope Colliery on Thursday. A large engine is employed there on the surface for the purpose of compressing the air, which is forced into a receiver, which is 30 ft. by 6 ft. The engine has two cylinders, each 32 in., and the engines work two air compressors, each 33 in. The compressed air is conveyed from the receiver by pipes into the workings, where hauling engines are worked by the compressed air. This air receiver exploded suddenly with great force and with great noise, which was heard a considerable distance from the colliery. About 9 ft. of the receiver was torn off, and considerable damage was done to the plant, but fortunately all the men escaped without injury. It appears that the man in charge of the engine had just completed oiling the working parts, and also had examined the pressure gauges, which read 57 lbs., the usual working pressure being 60 lbs. per square inch. On examination of the receiver it was concluded that it had been at a red heat, and it will be a curious matter of enquiry how this occurred. It is well known that in compressing a great amount of heat is developed in the air compressors, and cold water is kept constantly running over the air cylinders for the purpose of cooling them. It is difficult to conceive that the air vessel could become red-hot unless this supply of cold air had been cut off.

With regard to the American coal duty, it appears that a wide-spread agitation is springing up in that country in favour of taking off the tax now levied upon imported coal. During 1882 the value of foreign coal imported to the United States was \$2,245,933, and the duties amounted to about 30 per cent. of the total. Most of this coal goes from England for the Pacific Coast, and Nova Scotia coal is used for manufacturing establishments. It is considered that if this odious tax was repealed the consumption would probably be tenfold, for the great want of the Eastern States is cheap coal. It appears that the United States papers are urging the repeal of the duty, so that economy in production may be achieved, and their magnificent manufacturing establishments may be fully developed. Should this object be achieved a large trade in coal would spring up from these rivers, as many vessels now going out there are obliged to take out ballast, and cargoes of coal would be taken out at a very cheap rate.

The iron trade during the present week has been steadier, and there has been much improvement in the tone. There has been more enquiry for pig-iron, and more sales. Increased local and shipping trade is now fully expected. No. 3 at 40s. is considered the minimum, and heavy buying may certainly be expected shortly. The shipments of pig-iron for the last few days of February were encouraging, and there was a delivery for the month of 54,000 tons. The chief foreign delivery was to France. The manufactured iron trade remains in a most unsatisfactory position, and little profit can be had in finished iron at present. Ship-plates are down to 67. 2s. 6d.; boiler-plates, 77. 5s. The ironworkers propose to reduce the amount of their work, and thus reduce the make, which the masters failed to do owing to the defection of some of the masters. A meeting of the men is to be held in a few days at Darlington to decide the question. On Saturday the Cleveland ironmasters' returns, showing the make, stock, and disposal of pig-iron in the North of England was issued. There were 86 furnaces in blast during February, one more than in January, and 33 were making hematite, &c., which is three less than in January. The make during February was 212,490 tons, or 19,839 tons less than in January. This is accounted for by the short month. There is a net increase in the stocks and stores of Cleveland iron of 14,743 tons. It was anticipated that stocks would have increased more than this, but improved shipments and other causes which set in towards the end of the month have led to the result stated. The iron shipbuilding and engineering establishments on these rivers continue in full employment; there are plenty of orders on hand at the various shipyards, and the main engine and boiler works are also fully employed. Considerable orders have also

been secured at some of the manufactories for colliery engines and for locomotives. At Stephenson's celebrated locomotive engine works in Newcastle a large number of locomotives are in course of construction, and lately the largest engine of this kind yet constructed at these works was turned out. This engine weighed 55 tons. These engines are for a Midland railway company. One of the main topics on the Newcastle Exchange this week has been the probable effect of the revision of the United States tariff on our trade. No change in the duties on chemicals is expected, but the long period of suspense is now at an end, and more goods of all kinds will no doubt be sent. Already an effect has been produced in the Glasgow pig-iron market, and as the change comes with the opening spring trade we shall now see a general improvement in demand. One of the most important reductions made by the tariff is that on steel rails, the duty on which is now brought down to \$17. As steel rails are now being sold in the United States at 87 per ton, and as their price here may be put at 47 1/2s., it will be seen that there is not much chance of a demand in the Eastern States where the steel-works are, but it will very materially help to place cheap steel rails in the West, and it is quite possible for English rails with that duty to be delivered on the Pacific Coast cheaper than they could be carried from Pittsburgh, or even districts near the Atlantic seaboard. England must now cultivate trade with the Western States of America.

At Middlesbrough, on Tuesday, there was a much improved feeling, more animation, and an advance in prices of from 9d. to 1s. per ton for pig-iron. Makers' prices are now 41s. for No. 3. Messrs. Connal's stock is reduced 842 tons, being now 84,446 tons. Some good shipments of steel rails, &c., have been made lately to India. Steel rails are sold at a very low price—57 per ton—and a considerable business is now expected to America. Some improvement in the demand for ship-plates and other kinds of iron is reported.

REPORT FROM NORTH WALES, SALOP, AND CARDIGAN.

March 8.—A ride by rail, or still more so by road, from Machynlleth to Aberystwith, is full of interest. Let us in our rambles around the coast of Wales take the latter course on this stage of our journey. As we leave the former town we see the tramroad—now abandoned—by which the slates were formerly brought from Corris to the highest navigable point on the Dovey, at Denwenlas. We also pass another slate, or more properly speaking, slab quarry, with its inclines, buildings, and works now in ruins. This, too, was connected by the tramway alluded to with the little port. We come to the valley running south-east from the Dovey, which here forms the boundary between Montgomeryshire and Cardiganshire, and also that between North and South Wales. A mile or so up this valley is a large deposit of copper pyrites, at which many small trials have been made, but which have not as yet led to any systematic working. Four miles higher up the valley, through most picturesque scenery, is the Cwm-Rhadr Lead Mine, now idle, in a half developed state. A mile further along the road we cross another side valley, and a mile up this is the Cwm-Erw or Glandovey Slate Quarry, which is in a forward state of development, and the slabs from which have a good repute. In another mile we come to the village of Eglwys-fach, and just beyond we come to the Furnace—a hamlet of a few houses clustered around—a great massive building like two huge limekilns and another great building adjoining. In the palmy days of "Bushell" and of lead mining, it is said the ore was brought on horseback from the lead mines for a dozen miles around to be smelted here, coal being brought to the shipping place on the Dovey near by from Flint and Glamorgan. Can any reader of these columns give me any particulars of these old smelting works?

A mile up this valley is Tyn-y-Graig Slate Quarry, worked on the slate and slab beds as the Cwm-Erw just noticed. These slate beds are thin, but they are interstratified with slab beds, and the whole group lies above the ore-bearing strata of the district. These strata here dip to the north-west, and away to the south-east are the lead mines to be noticed. The first of these is the Ystrad Eion, a mile or so higher up the valley than the slate quarry. Associated with the lead ore here there is a good deal of blende and copper pyrites. Further along our road we next see the works of the Bryn Dyfi and the Cefn Gwielrog Mines in the hills on our left. In the first-named mine the lead is free from the two other minerals, and comes out in cubical masses, like Potter's ore. In Cefn Gwielrog lode the ore is finer grained, and is associated with blende. Close by the latter mine, still on our left hand, is the Ynys Tudor Mine, where a level is being driven which is intended to strike the Cefn Gwielrog lode. A mile further on our way we have in the strata through which the road is cut a great mass of lodestuff, and down on our left is the Penrhyn Gerwen Mine, with a great lot of ore about the shaft and level. Soon we come to the entrance to Park Lodge, once the residence of the famed Mr. Bushell, and hereabouts there are numerous strings of ore and trial holes, like a rabbit warren.

Soon we come to the miners' village of Treiddol, where we halt at the Halfway House and have a talk with Capt. Charles Williams, of the Tan-yr-allt Mine. Then we come to the village of Taliesin, and in the hills to our left are the Bryn-yr-arian and Pensarn Mines. To the left and right of us are the mines and dressing-floors of the Old Roman or Pwll Mines, in which now at a depth of 10 fms. there is a great mass of copper ore. In the next hill to our right is the Taliesin Mine, from which a good deal of ore has been obtained, and from which probably a good deal more will be got when the workings are sunk through the unproductive shale rock in which for some years now the various workers have been floundering. We are nearing Talybont, and the hill on our left is reticulated with lead lodes. It forms the Ergloed, Cefn Ergloed, Penybryn, and Penpompren mining properties, now under the management of Capt. Rees. A deep level is being driven, which is intended to cut a good many of these lodes, and to unwater the deep workings of the Penybryn Mine. We wish the owners and the captain success. Down below us on the right is the Tan-yr-allt Mine, which of late years has been making steady returns of ore. In the hill just beyond are the extensive workings of the North Cardiganshire Company's Mines. The ore from these and from the Ergloed United Mines is very rich in silver, and is mostly steel ground in texture. Let us stay for the night at the hostelry of the Lion, at Talybont, and have a chat with Mr. Pell.

RESPONSIBILITY OF LIQUIDATORS.—Each liquidator in the voluntary winding up of a limited company is really and legally in the position of a trustee for the creditors and contributories of that company, and as such he will be held liable for the assets. This broad rule of equity has been practically enforced in the case of *In re the Gold Company of Southern India (Limited)*, where the decision of Mr. Justice Kay is full of interest and instruction to all concerned in companies. There, at a general meeting, an accountant and a Major were appointed liquidators of the voluntary winding up. They, therefore, became joint liquidators or trustees for the creditors, and as no resolution was passed under the Companies Act authorising one to exercise every power without the other, as is sometimes done, they were jointly liable accordingly. As a matter of fact the accountant carried on the liquidation in his own way, and did not open a joint account. He afterwards went into liquidation, and now the Court was asked to declare that the Major was liable to make good the deficiencies of his colleague, whom he had trusted too implicitly. The argument in support of this application was both clear and cogent. As the shareholders of the company had not authorised the accountant to act alone, both liquidators were equally liable as trustees, and so were responsible for the acts of the other. The Major had, in fact, made the accountant his agent by allowing him to carry out alone the business of the liquidation and receive the assets of the company. To this argument there was really no answer beyond a vague statement that some of the shareholders had agreed that the Major should only be responsible to look after certain assets of the company, and the general statement that the Major accepted the office very unwillingly, and left the business in the hands of his colleague. But although it may seem hard upon the individual affected by this case, there can be no doubt as to the justice of the ruling of Mr. Justice Kay. The wide interests of contributories and creditors have to be considered, and if

one liquidator claims to be absolved from his general liability as trustee for the deficiencies of his colleague, he must be prepared to prove that the shareholders of the company to be wound up have agreed that he shall not be responsible. Any other rule would make the appointment of liquidators of good position little less than a form, and would do away with the advantages expected from such an appointment.

Meetings of Public Companies.

MARBELLA IRON ORE COMPANY.

The ordinary general meeting of shareholders was held at the offices, Queen Victoria-street, on Tuesday.

Mr. P. W. SPENCE presiding.

Mr. W. KERRE CONNELL (the secretary) read the notice calling the meeting, and the report of the directors was taken as read.

The CHAIRMAN said: Gentlemen, it now only remains for me, in moving the adoption of the report, to say that, in considering the iron trade, and the serious losses and failures that have occurred therein, it is a matter of extreme satisfaction to the directors that they are able to present you with a balance-sheet showing an available balance of upwards of 16,000l. When I addressed you this time last year I ventured to hope, and at that time I confidently believed that the output would have been larger, and the profit greater, than in the previous year; but various circumstances occurred to prevent so desirable a result, and more especially amongst them I would mention the high rates of freight that were ruling between England and America during the earlier portion of the year—rates quite prohibitory to the shipment of iron ore. After this occurred the iron-workers' strike in America, when some of the firms not only refused to receive shipments, but tried to repudiate contracts, inasmuch that our buyers claimed that under such unforeseen circumstances we should not press shipments upon them, but delay deliveries. We felt that we could not reasonably decline to do so, and we acceded to their request, which accounts for the smaller shipments of the company than would otherwise have been the case. With regard to the diminished output, which makes such a serious difference in our balance-sheet to-day, it has arisen partly from an over-anxiety on the part of the directors to increase the working capacity of the mine, and to reduce the cost of production. A very large amount is expended in uncovering work, in removing the overburden, or upper portion of the hill which lies on the top of the iron ore, and we were advised that by the firing of a large charge of gunpowder in all probability sufficient limestone and earth would be removed to lay bare the iron ore, and admit of its being extracted at a comparatively trifling cost. We hesitated for some time, but on receiving fuller information, and visiting quarries in Scotland, at which these monster blasts have been so successful, we determined to try the experiment. A tunnel was run for some distance into the hill. It was turned off at right angles, and a large chamber was formed. The chamber was then formed, in which was deposited three tons of gunpowder. These were fired by electricity simultaneously, and the result was a decided success, but the surface of the hill was so dislocated and shattered that it was impossible for the men to work underneath it until the rains came and brought down the loosened portions, and so some weeks were lost before the men could resume work. We have computed that possibly some 20,000 or 30,000 tons of ore and rubbish would be affected, but at least three times that quantity has been dislodged, and owing to some peculiar lay or position of the strata in the interior, the shock of the explosion was felt a much greater distance laterally than we had expected. It has undoubtedly very materially interfered with the output during the last four months, but it must not be looked upon as an entirely adverse event, for this uncovering was a necessary work, and must have been undertaken before long. One of the stops had been already worked out, and another nearly so, and it was needful that new ground should be opened up to ensure a continuance of any-thing like the output we had previously had. We now hope that we have a large quantity of ore lying at the foot of the hill, which will be available at a trifling cost for removal and selection. The debris is being removed at the rate of 1000 tons per day, and we believe that by the end of this month the mine will again be in fair working order. In spite of these drawbacks, gentlemen, we have a sum of 16,000l. to deal with to-day, making, with what was distributed last year something like 35,000l., certainly not a sum which must be looked upon as unsatisfactory for the two years. With that 16,000l. we propose to pay to the shareholders, free of income-tax, a further dividend of 5s. per share, and to divide the balance of the profit on the iron ore at 75 cents per ton for the year, or (say) 5 per cent. (this will absorb 12,500l.); to add to the reserve fund and for depreciation 3000l., and carry forward to the credit of revenue 782l. 9s. 5d. (Hear, hear.) The depressed condition of the iron trade, both here and in America, has induced us to refrain from pressing sales, but we have already sold a fair proportion of the probable output of this year at fairly remunerative prices, and now that the tariff question is settled in America we look for a better demand from that market, and also for higher prices. As far as I have been able to ascertain, the new tariff duty on iron ore will be 75 cents per ton, instead of 20 per cent. *ad valorem*. That would make it at the price of 13s. 6d. exactly the same as at present. That will rather be in our favour, because ours is a high-priced ore, whereas the lower-priced ores will all have to pay the same. Ores worth only 6s., 7s., and 8s. will have to pay a duty of 3s., where we, getting nearly double the price, will only have to pay the same duty. I think I shall be anticipating some of the questions of shareholders if I answer certain enquiries that have been addressed to me from Glasgow, and answers to which I have been unable to give at this meeting. (1.) "Is the Marbella still being worked, and if so, is it at a profit?" We have not touched our mine. That I told you at our meeting last year, because it is so much more conducive to the interests of the company that we should work as much as we possibly can under the lease, and our mine is in the meantime remaining dormant. (2.) "When does lease of leased mine expire?" Though some gentlemen have forgotten it, I laid the lease on the table at our meeting last year. It expires on March 1, 1885, therefore it has two years still to run. (3.) "Are we now being shipped?" That I have told you. (4.) "If ore is now being shipped freely?" Yes; we have shipped some 10,000 tons during the last two months, and we are now shipping ore. (5.) "What effect will the new tariff have on American buyers—will it be beneficial or otherwise?" I have just told you. (6.) "Have you contracted for all this year's output at paying prices?" Not for all, because we do not know how much we shall produce. We are contracted for a small quantity, and we shall not miss any opportunity of doing better as the year goes on. We considered that the change was advisable in the management of the mine, and we have lately sent out Mr. Mitchell Vivian, from whose personal character, antecedents, and experience in mining matters the company may expect to derive great benefit. He has only been out there some two or three weeks. He had a very stormy passage, and has not yet been able fully to grasp all the matters there. He writes that he finds the rolling stock and incline are in first-rate working condition, and as not needing any serious repairs for a long time to come. Now, gentlemen, I shall be only too glad to answer any questions on any points that I have not alluded to. I will now propose the resolution, and ask Mr. Wakefield to second it. He visited the mines last April, and will, therefore, be able to tell you, from his own personal observation, what he thought of the mine, and possibly of its prospects for the future. I now beg to move, "That the report and accounts for the past year, as submitted to this meeting, be received and adopted."

Mr. KENDALL: You said that the mine would be in working order at the end of the month?—The CHAIRMAN: Yes.

Mr. KENDALL: Has it not been giving any output this year?—The CHAIRMAN: Very trifling indeed.

Mr. KENDALL: This present year will be affected by this accident?—The CHAIRMAN: You lost two months of last year, and you really will lose three months of this year.

Mr. JEFFREY: You have shipped 10,000 tons already?—The CHAIRMAN: Yes, but that was in stock.

Mr. J. O. WAKFIELD: If you ask any questions after the report has been seconded they will be answered fully. Last year when I had the pleasure of meeting you, several gentlemen expressed a wish that some director or directors should visit the mines, and I agreed to do so, and went about the month of April of last year. I was very much pleased to find everything in such first-rate order. I may tell you that the pier, which cost an enormous amount of money, is first rate. The railroad also I was very much pleased with. It is a distance of four miles, and neither it nor the pier will scarcely want any money spent upon it for a long time. There are always little repairs on railways, and on piers, but several things which I suggested should be done are being done, and most satisfactory to me in every way. I was amazingly pleased with the prospect and look of the mine, and I quite endorse the whole of Mr. Spence's remarks that it is much more desirable to work under the lease than to work our own mine. Should anything occur, which we do not for a moment expect, we then can fall back upon our own mine, which, you are aware, is not so easily managed as the working of Heredia's Mine. There has been a great deal said in Glasgow, and which has, unfortunately, got into the papers. Several gentlemen have written to me and to the secretary about it, and although it is not usual to answer anonymous correspondents, I think it is due to those shareholders who are not here that I should answer many of the "lies" that have appeared in print. I call them by their plain name—lies. The writer subscribes himself "Veritas;" if he had called himself "Mendax" it would have been very much more in character. I cannot understand how, in the first place, any respectable journal, without knowledge of what is going on in a well-ordered company as this, should give credence, or allow such a letter to be put in the paper, because it depreciates property unduly, and besides, there is not a word of truth in it. In the first place, gentlemen, he alludes to a "dyke." Now, there is no such thing. (Laughter.) We have driven galleries right through the lode. There is no obstruction whatever. There is an enormous amount of ore, which I am ready to prove by my own experience (I have been all over it from the top to the bottom, and in the whole of the mine), and, therefore, I may state to you what is my own knowledge, and for the truth of what I say I can vouch. There are no such things as "dykes" or "faults," as they are called in mining phraseology. The galleries prove that the thing is a solid mass to a large distance. He states, in the second place, that a landslip has taken place, but no landslip has occurred. It is true that we have brought down from the top of the mine a much larger portion than we intended, because the effect of the blast seem to have extended several hundred yards northwards. I contend that, by that blast in the end we shall have an enormous amount of money. To have removed what is brought down by that blast would have taken, I may say, in round numbers, five times more to clear away at the top than it will do at the bottom. Therefore, in the long run, I believe we will find that when it is cleared away we will come to an amount of ore that is easily worked, and not only that but under the debris that now lies at the bottom of the hill there will be a very large portion of ore. Of that I have no doubt. He states also that we have made no sales, and that America is our only customer. He shows, gentlemen, that he knows nothing about it in any way whatever. We have some orders this year from the first houses in this country,

and pretty considerable orders too, and other applications, so that we have no difficulty in disposing of our ore. But as my friend, the chairman, has told you, in the present state of the iron market, it would have been very imprudent to have forced sales at such prices as you or gentlemen would not have been satisfied with. As regards the railway and pier, he states in this letter that it would be very easy for another party to get possession of the mine, and make a railway and pier at the expense of 15,000l. (Laughter.) Any gentleman here who has any knowledge at all of such matters will know that, apart from the cost of the railway, the pier extending into the sea a quarter of a mile has alone cost not less than 30,000l. to 40,000l. The railway has cost nearly as much, and therefore I leave you to guess whether any man in his senses can say a railway and pier can be made for 15,000l. No company would go to the expense; but, independently of that, I go further, and say that when the original survey was made for a railway and pier it was conclusively proved that there was no other practicable route for a railway terminating at a point on the coast where a proper foundation could be found for a pier. Therefore, there is no chance whatever—certainly there is no prospect of any railway or pier ever being made, because it is the only way by which access may be had to the coast, and it is only there that any foundation can be got.

Mr. OUTRAM: Does the railway belong to the company?—Mr. WAKFIELD: Both it and the pier are entirely our property. There is not a shilling of mortgage upon any part of it. It is free, and we have lands connected with the railway, which no one can interfere with, and a large amount of railway property at the pier. I was uncommonly pleased with the mine. The quantity of ore there is unbounded, and although we have lost the output for the last three or four months, my own belief is that we shall make up what we have lost. I believe that from the end of this month the output will be greatly increased. I am sure that any question you may address to the Chairman will be answered in an honest and straightforward manner. (Hear, hear.)

Mr. JEFFREY said he was perfectly satisfied with the dividend they now proposed, 5 per cent. was not easily obtained. It would be interesting to hear what were their dividend prospects for next year.

Mr. TAYLOR: You said that if the debris at the rate of 1000 tons a day were removed then you would be able to get the mine in working order at the end of a month. We have 25 days yet to run, so that we should be clear by the end of March. How much does it cost to remove this debris, and then we can get at some idea of the prospects of the future.

A SHAREHOLDER: Perhaps you are able to shoot this debris into the sea?—Mr. WAKFIELD: Oh, no. We do not take it down by railway, but there are enormous open spaces not far off, and we have tram-roads laid to these points. Mr. Wakefield went on to describe the position of affairs by the aid of a plan, and remarked that, sooner or later, the debris must be removed, and at five times the expense.

The CHAIRMAN, in reply to a question, said the costs of the overburden for January were 344l. 6s. 9d. in all. They appeared to have taken away 18,000 tons of debris in January, but they were now doing better. They were now turning out ore in small quantities, and they expected to get to the main body by the end of this month. They paid Mr. Heredia a large sum of money last year, and they would do the same this year. They had a fair amount of orders on the books, at goodly prices.

Mr. WAKFIELD said he believed the company would pay the same dividend this year as last.—The CHAIRMAN: Never prophesy until the event. (Laughter.) The question of renewal of the lease was left to the board.

The CHAIRMAN said their own mine and the railway and pier were freehold. The report and accounts were then unanimously adopted, and a dividend of 5s. per share declared, payable on and after the 14th inst.

The retiring director, the Chairman, was re-elected, and Messrs. Turquand, Young, and Co., were re-appointed auditors.

On the motion of Mr. OUTRAM, a cordial vote of thanks was passed to the CHAIRMAN, who in acknowledging the compliment said: "We are all very much interested in the company, and our time or labour is spared that may be wasted in carrying out the details. At times we have had much anxiety both on the score of contracts, and lately with regard to this debris, but we work most harmoniously together. We are anxious to get any information we can, and any assistance from shareholders or others is welcome. It is our great desire that we should not only make our company a paying company, but satisfy you, and do as well for you as we possibly can. (Cheers.)"

The meeting then closed.

COLORADO UNITED MINING COMPANY

An extraordinary general meeting of shareholders was held at the New Exchange Buildings, on Tuesday.

Mr. FRASER RAE in the chair.

The SECRETARY read the notice convening the meeting.

The CHAIRMAN said it was an interesting and exceptional fact that during the whole history of this company, now extending over upwards of ten years, on no occasion had the board proposed anything to the shareholders which they had not assented to, nor had the shareholders requested the board to do anything which the board had not done their utmost to carry into effect. Their presence there to-day was a proof of the general statement. When their annual general meeting was held last August it was suggested by several shareholders that a semi-annual meeting might be held with advantage, and, on behalf of the board, he promised that it should be held. It was now held. It ought to have been held strictly and technically speaking last month. The board in order to keep their promise to the shareholders appointed a day in last month for the meeting. On a request conveyed to them by a gentleman representing, as he said, several shareholders, they not merely carried out what this board always carried out, the policy of assenting to everything that the shareholders in general meeting requested; but they even endeavoured to gratify and satisfy if possible a smaller number of shareholders by postponing the meeting from February, which they were told would be inconvenient to some of them, and appointing it for this day. When they met together in August, and resolutions were proposed, which were assented to unanimously by the shareholders, they least or had reason to suppose that the shareholders having assented to this in August had changed their minds, and in order to show how strictly the board had endeavoured to carry out the policy he had stated they were quite prepared to give the shareholders an opportunity of rescinding in March what they agreed to unanimously last August. In addition to that they gathered at a meeting held at the request, he thought, of 40 out of 600 shareholders of this company, legal and technical matters of a great deal of interest for further definite information with regard to certain things in connection with the company's property in Colorado, and so endeavouring, as they had done, to meet the views of the shareholders, they proposed this day to put before them a resolution giving effect to the desire so expressed. These were the reasons of their meeting there to-day, and the reasons also for the resolutions which would be put before the meeting for their assent or dissent. Those resolutions, he might add in passing, consisted of the only business that this meeting could legally perform. This was the extraordinary meeting, and nothing but the resolutions could be legally passed. They had in a circular issued along with the notice convening this meeting complied with a promise made at a meeting in November, that information should be obtained from Colorado, and that that information when so obtained should be placed before the shareholders. It was placed before them in the form of a document, which he presumed they had all received. That circular gave the shareholders as much information as the board themselves could give. There were other matters which were not embodied in the circular, matters of a somewhat unpleasant character, bearing upon documents which he supposed most of the shareholders had received; but some of them he knew had not received them, and which contained a complaint by Mr. Ward, who was in their service for a certain time. They did not publish anything regarding it, because it seemed to the board it might only add to recrimination and other unpleasant matters if they got up a war of circulars. In that circular there were statements made of a somewhat strong character, and they thought it right to communicate to the shareholders in general meeting assembled as they now were, what the reply was. It was a matter between the manager in Colorado and the shareholders here, their manager in Colorado having received a copy of the circular sent them a despatch to the following effect:—"Have just seen Ward's circular, dated Jan. 22. It is false in its statements from beginning to end. I will pay a reward of \$5000 to any person who will discover any such ground as Ward states exists in the terrible lode, and who will also pay 1000l. reward to anyone who will discover any ground in any of the company's mines that will yield 450 tons of ore of the value of \$500,000. Our present reserves exceed 1000 fathoms." Of course the board did not enter into any discussion with references to the circular, but it was obvious Mr. Ward had a simple and easy mode of earning a fair sum of money by accepting the challenge of Mr. Hamill. Then they had a statement asking if it was true Mr. Ward had not the opportunity for making up his accounts? The answer was this—Mr. Ward had every facility both as to accounts and books, the same as all other clerks had had, including Messrs. Macrae and Macrae. As evidence of his total inefficiency in his position he had, for some months past, been neglecting to send in his accounts, and he had neglected to send in the necessary documents from which to complete June accounts, and yet he never was able to make them up correctly to the date of his dismissal. There was another telegram—"Referring to Ward's circular, our extreme westerly limit is 1500 ft., west end Silver ore shaft, and not 3000. Refer to July accounts and you will see that commencing July 1 we pay but 40 cents a ton for carrying ore and dirt. These are samples of Ward's veracity." That was all the information he need put before them with regard to a matter that was very unpleasant to him personally. The explanation was their books were somewhat of a difficult kind to keep; they had been kept in the same way for 11 years, and perhaps there were difficulties in connection with the keeping of the books which Mr. Ward did not realise. His predecessor, Mr. Pearson, spent some days in the office of the company here in order to master the mode of book-keeping, and when in Colorado he kept the books efficiently. Mr. Ward's successor, Mr. Macrae had had the experience here, and he had kept the books without any difficulty or delay in forwarding the accounts. These were all the statements he thought he need make in connection with the circular, subject, of course, as they would understand, to any enquiry any shareholder might wish to make. What he came to now was to propose the resolution to the effect "That the meeting approves of the board declaring and paying an *ad interim* dividend as soon as the funds now in hand and the remittances which are expected from the Engist of distribution out of net profits, after payment of the liabilities in England."

It might be said, in reply to that resolution, if the board had the power to declare *ad interim* dividends; but, as the board had been informed that any and every resolution they proposed would be opposed, they thought it well to know whether the shareholders approved of their paying a dividend or not. If they approved of their paying a dividend they could do so; if the shareholders did not desire it the directors would bow humbly to their decision. Difficulty was, that the liabilities in England amounted to a considerable sum. Since 1876 nothing had been paid to the directors of this company. Had it not been that the directors of this company took nothing when the money was there for them to take, it would have been wound up long ago. They had more than once the opportunity of doing what was, perhaps, their duty to pay themselves the same as the clerks, or secretary, or manager; but they had voluntarily abstained from taking any payment, not only so, but the payment which, under the Articles of Association, they were entitled to, was the times that which they, by voluntary resolution entered into, had agreed to take 2s. and the total arrears, dating back to 1876, was not more 2500l. or 2600l. He

was acquainted with many companies in the City of London in which as large a sum per annum was distributed amongst the directors, and when it was reported to them they had worked, and worked hard, for seven years in their service, some of them had died in the service and had left those to whom the remuneration would have been an object, he thought the directors deserved some slight credit for not having taken what they were legally entitled to take. They did not ask any credit for themselves, as they thought it was their duty to the company. The difficulties of the liabilities in England was a serious one in as much as until those were paid they were not entitled to distribute a dividend. Now the directors proposed, in order to meet the difficulties voluntarily, to forego one-half of the claim for the time being. They had in hand a sum whereof they telegraphed to Mr. Hamill informing him of their liabilities, and asking whether they could promise a dividend before August. His reply was, "remit 10000 sterling. Dividends should be declared payable May 1. Can remit you sufficient to do it." That was dated Feb. 27. They had received a further despatch from Mr. Hamill this morning to the effect—"Accounts for February complete, and mailed to-day. Net profit for January and February exceed \$11,000. Remit 10000 sterling. The 13 level entering fine body of ore; now 270 feet east of silver shaft." The position was this, that if they accepted the proposition which the board had made they would not have to wait for the dividend till May 1, but would get it in a few weeks. He thought that was a very fair offer on their part, and he should be very much surprised if it was not received in the same spirit as it was tendered. (Cheers.) In conclusion he moved the resolution.

Mr. MONTGOMERY seconded the resolution.

Mr. STAPLES said he looked forward with pleasure to receiving a dividend, but hoped it would not be paid until the company was in a strong financial position. It would be to be an unpleasantness with Mr. Hamill it would be very important that the board should have the sinews of war. With regard to the dismissal of Mr. Ward it seemed to him one of the great points was this—Was Mr. Ward a suitable servant; had he the ability to do the work he was sent out to do? One of the great points against Mr. Hamill was that he had discharged Mr. Ward. Only last Saturday he had an interview with Mr. Ward of a short duration, and he found that Mr. Ward might easily have given them those accounts if he had had the competency to do so. He ascertained from Mr. Ward that those particular books that he said he had not access to were kept at Mr. Hamill's private office. He asked where the office was, and was told that it was three miles away. He said, "Did you walk those three miles and ask for access to those books?" His answer was "No, I did not; it was Mr. Hamill's place to instruct me as a new clerk into my duties. Besides he had a trap, and could have brought them to the mine." So that he (Mr. Staples) said, "Then it was the master to take the place of the servant, and the servant to take the place of the master." He did not want to know anything more than that, and he did, therefore, ask them to give confidence to the board, and to accept what the board was desirous of doing. The Chairman said they had no interest other than that of the shareholders. There was a proposal that some gentlemen should be added as a consulting committee, or that the board should be increased, and it was his idea that that should be accepted to the fullest extent, and also that another suggestion which he gave some months ago should be carried out—that Mr. Rickards, whose name was well known, should be sent out to the mines. Mr. Hamill said—"Send anyone who is competent, which was a very natural proposition. Mr. Hamill wanted a man who was a practical miner, and said send him by all means, and let him examine. He hoped that Mr. Smyth would remember that he was the custodian of a large amount of power in the shape of proxies, and he trusted that gentleman would allow those proxies to be quiescent in the interest of the company, and the board or the committee should get the opinion of Mr. Rickards as to the past management, and the expenses incurred in opening up the vast amount of dead rock, ascertain what was going on at the present moment and give them a report, and then a report of what he supposed might be the future of this property. Then they would be quite competent to form an opinion as to whether they should ask Mr. Hamill to remain or should take the initiative and request him to retire. It was not fair or prudent to go in opposition to the board when they had put everything they possibly could before the shareholders.

Mr. SMYTH said that he proposed to take no violent measures whatever. It would be highly imprudent for him to do so. With regard to the suggestion of Mr. Staples respecting Mr. Rickards he was very glad he had made that suggestion. He held a letter from that gentleman to say that he would be happy to undertake the management or inspection or anything they liked provided the terms were satisfactory.

Mr. THOMPSON asked whether 20000 was the whole of the liabilities in England?—The CHAIRMAN: Yes, as far as we know.

Mr. THOMPSON did not think it was a business proposition for any company or individual to say, "We are in debt, and we will continue in debt, and if we make money we will divide it. Their first duty was to pay their debts, and when all their liabilities were discharged then they might consider the question of the payment of a dividend.

Mr. STAPLES said the effect of what the directors did was this, to make the other 13000 an illegal charge, which they could not claim; but, of course, when the profits were made they could take it for themselves.

The CHAIRMAN said the directors were the directors, who would forego their claim until the shareholders were paid a dividend.

Mr. THOMPSON: Therefore the claim would come against the company in case it was so wished by the directors individually on May 2. This dividend is to be paid on May 1, and, therefore, this claim would be due on May 1.

The CHAIRMAN: The claim continues. The claim goes on until it is met; the truth being it is a voluntary offer from the board to forego a legal claim which they have. We say that we will defer our claim in order that the shareholders should benefit immediately.

Mr. STAPLES said he would pay a dividend as long as there are liabilities; if, therefore, you put in advance 13000, you are practically putting yourselves in an illegal position if you pay the dividend, therefore it must be a debt of honour due by the company, and it is not a legal debt, and, therefore, it does not affect the payment of the dividend.

Mr. THOMPSON: At any rate it is intended that that shall be a claim against the company which will be enforced, and I say it is not a business proposition to continue in debt where that claim is to be satisfied to-morrow or to-morrow two years. I would wish to postpone the payment of the dividend, it will be most acceptable to me, but it is the same time I think it is an unwise and unbusiness-like proceeding while the company is in debt. I think it is an unwise thing for any company, whether a trading company or a mining company, to distribute a dividend before it has a reserve fund, which may be available in the event of any contingency. Accidents may happen which are most unexpected, and therefore I think we ought to have at the very least a reserve fund of 5000.

Mr. SKILBECK looked upon it that the directors had either done their duty or neglected their duty. His opinion was that they had not done their duty during the past eight years.

After some further discussion the resolution was put and carried.

It was also resolved that a committee of advice be appointed to confer and advise with the board as to an examination of the mines and investigation of the company's accounts in Colorado by a competent and trustworthy person, in accordance with Mr. Hamill's request.

Messrs. Smyth, Fitch, McDermore, Labouchere, M.P., Thompson, and Arthur were elected the committee, and the opinion was expressed that Mr. Rickards should be sent to Colorado.

A further extraordinary meeting was held, but no resolution was passed.

Mr. SMYTH moved a resolution disapproving of the board as at present constituted, calling on some of the directors to resign, and nominating others, but he was ruled to be out of order.

BRAZILIAN GOLD MINES.

An extraordinary general meeting of shareholders was held at the offices, Palmerston Buildings, Old Broad-street, on Monday, Dr. THOMAS JOSEPH CANTRELL in the chair.

Mr. G. C. HARVEY (the secretary) read the notice convening the meeting.

The CHAIRMAN said the retirement of the late Chairman, Mr. Robert Wilson, had placed him in his present position, a position to which he had not aspired, and did not seek. He was, however, supported by gentlemen of practical experience at the board, and he intended to do all he could for the shareholders. For a long time past there had been complaints by various shareholders of the inadequate information furnished to them, and a considerable number of shareholders had stated that unless more regular information were received from the manager they intended to sign a request for a special meeting to be convened to consider the subject. He and his colleagues felt the absolute necessity for this information, and they felt it to be their duty to the shareholders to elect Mr. Mansell, who represented a large number of shareholders, to a seat at the board. Mr. Mansell accepted the invitation, and Mr. Wilson thereupon resigned his seat.

The CHAIRMAN said it should be read after he had written should be read? The meeting had been convened to consider and if necessary to discuss the report on the property furnished by Mr. Lean. He was sorry to say that that report was not of a favourable character, but by-and-bye he would show that it was in contradiction to the other statements Mr. Lean made some time previously, in which he alluded to the mine in high terms, and brought it before the notice of the investing public as a first-rate company. Still—when compared with the large amount of money that had been spent, where such large sums of money had been spent, and where up to the present time, as he believed, little or no results had been yielded in the shape of gold—he did not think that they need despair of ultimate success. The reports from the manager had lately been more favourable, and in the last one—received only a short time since—Mr. Geach said he hoped to bring his labours to a successful issue. They also had something substantial to show in the shape of nearly 20 lbs. of gold dust, and 2 lbs. more were now at the mines ready to be sent over.

The *Mining Journal* of Feb. 24 contains an editorial article discussing Mr. Lean's report, and the statements contained in the prospectus that a public enquiry should be instituted. He was sure the board would not hesitate to grant and afford every facility for the most searching investigation. They had nothing to be ashamed of, and he was under the sole management of Mr. Geach, who was a personal friend and the nominee of the late Chairman. The books of the mine had been kept by a nephew of the late Chairman until his recent resignation. From this it would be understood that no one could know better than, or perhaps as well, as to the conduct of his management and as to their capabilities. He (the Chairman) would read to them a number of extracts collected from the reports of Mr. Geach, from which it would be seen that he fully confirmed, and more than confirmed, the statements contained in the prospectus. [The Chairman then read several extracts from Mr. Geach's reports, written from October, 1881, downwards, as to the auriferous character of the property, the width of the lodes,

the finding of visible gold, &c.] It had been stated in another financial journal that the reason for the resignation of the late Chairman was that Mr. Lean's report was of so very unfavourable a character that the board refused to send it out to the shareholders. This statement was, however, exactly contrary to the fact. Mr. Lean's report was not, in fact, received until some time after Mr. Wilson's retirement, and as soon as possible after the receipt of the report the secretary was directed to have it printed in *extenso*, and a copy sent to every shareholder.

Mr. ROBERT WILSON said he was told distinctly by the secretary, nine days after the report was received at the office, that he had no orders to print it. Indeed the report had not then been copied.

The CHAIRMAN replied that the reason for the delay in printing it was the fact that the various statements in that report had to be initiated by Mr. Lean. As soon as that was done the report was printed. The Chairman, continuing, said he would read a few extracts from Mr. Lean's letter to the *Mining Journal*, published in October, 1880, and he would be very curious indeed to know how the writer could reconcile the two conflicting statements he had made. In reference to the Descuberto Mine he said—"The Descuberto Mines, to which I beg to call particular attention, and which are now called the Brazilian Gold Mines, are situated in the midst of the richest known gold region in the world, and we are in the centre of the richest known district. It is distant 40 miles from Don Pedro del Rey, 30 miles from Santa Barbara, 20 miles from St. John del Rey, and but a short distance to the west of the celebrated Gongo Soco. I here use the words of Mr. Rickards, who is now the chief manager at Santa Barbara, who was at St. John del Rey, and who came to Gongo Soco whilst I was there. In speaking of the Brazilian gold mines relatively, as to Gongo Soco he said—"Speaking as we do in Brazil there is really no distance between your property and Gongo Soco." But it is to the Descuberto Mines, just now as to work under the name of the Brazilian Gold Mines, that I would beg to call the particular attention of capitalists and investors in mines, and which constitute the object that I have in writing this paper. The Descuberto Mine, or the New Brazilian Gold Mines, embrace 11 auriferous lodes, said to average from 4 to 7 ft. in width, appertaining to three distinct mines—the Descuberto proper three, the Matta-Matta five, and the Servico Velho Mine three, but as the workings, which consisted solely of open surface cuttings, and so worked as stated only to the depth of 13 fms., have all crushed and sunk together, the fact of the magnitude and state of the lodes can be ascertained only by public report, which, without a dissentient voice, say that the lodes up to the time of the cessation of operations, through the death of the widow lady owner, were rich in gold. They have also a mountain of auriferous jactings of a most promising appearance for gold. Great faith is placed on this, as stated in the reports of the practical men who inspected the property, but which as yet has not been penetrated. When at Gongo, amidst the abundance of riches there, I used frequently to hear of those of the Descuberto, but a stronger and more convincing proof as to the rich and enduring state of the mines I gather from the documents which I read, left by the several successive generations of the family, owners of the mines, who state that they worked them during a period of 147 years, and that they kept every member of the respective successive families during that time in ease, affluence, and luxury, and which is attested and confirmed by a long and minute official statement by the public notary." In concluding his paper Mr. Lean quoted the following opinion:—"This is the information I am enabled to give respecting the mine of Descuberto de Guerra. I consider it a rich mine, and worthy of every recommendation. I am now 64 years of age. I have worked both in gold and in diamond mines, and, consequently, have some slight and limited experience." (Signed, Octavio Aloriz Pinto, Second Notary Public of the District.) And added—"Thus it will be seen to all appearances, relying upon apparently infallible data, that a cluster of rich mines, after having been worked consecutively for 147 years, worked without system or order, yet leaving an abundance of profit, were brought to a standstill from want of a skilled and proper method of working. According to every prospect, what may not be expected from these mines when wrought by English miners? I have no doubt that the English method of mining, why, again, it may be asked, go to distant India in quest of gold mines, in a pestiferous climate, while gold mines of such high promise as these present can be obtained in Brazil?" He would leave it to the judgement of the shareholders if any confidence could be placed in the reports of a person who changes his opinions in such a sudden and marvellous manner. (Hear, hear.) The Chairman added that he had nothing further to say on the subject, but he would be very happy to hear whether any of the shareholders wished to put any questions to the board on the general subject of the mines.

Mr. THOMAS TREGELLAS: It has been hinted that some of the shareholders are under the impression that I was sent out to Brazil to inspect the Descuberto property. This is incorrect. The latter part of May, 1879, I received a telegram to come to Liverpool. On my arrival there, I was told by the managing director of the Santa Barbara Gold Mining Company (Limited), that their manager at the mines had been taken suddenly ill, and desired to leave at once for England to obtain medical aid. He then asked me to go out and take charge for a few months during the manager's absence. I said I had no idea of again visiting Brazil, but if my family did not object I would, to oblige the directors, go out. I returned to England, and the directors sent a telegram to the manager at the mines stating that I was prepared to leave at an early date, and go out to relieve their manager. I left London June 16, 1879, and arrived at the Santa Barbara Company's Mines July 25 following. Thursday, Sept. 13, I left the Santa Barbara Company's mines for Caethé, and stopped at the latter place for the night. On the following day (Friday) I went, for the first time, to see the Descuberto property. I was there again on the Saturday, and left in the evening for Caethé; remained there the night, and the following day returned to the Fort Mine. I had, previous to going to Descuberto, arranged with the manager of the Pitangui Gold Mining Company (Limited) for Capt. Arthur Martin to accompany me, as he had already examined this property two or three times, and, from his previous knowledge, was well able to assist in my examination, which help I most appreciated, as my time of absence from the Santa Barbara Company's mines was very limited. As you already know, on the 28th of the same month I wrote my report on this property; hearsays I handed as received by me, apart from this I believed I had not had time to write, and I may say there is not a word in it that I have any desire to retract. With regard to the jactings formation, I stated that the jactings formation alone, in my opinion, is worthy of exploration. On my arrival in England I said the same to your directors, and I still retain the same opinion, in fact, I have a better opinion of it now than when I wrote the report—Sept. 26, 1879—my reasons for which are as follows:—1. At the time I wrote my report it was said the jactings formation was auriferous, since when your manager has often stated in his letters to the directors that samples of the jactings formation washed showed gold, thus confirming beyond doubt that the jactings formation is auriferous. 2. At the first general meeting of shareholders, held at Cannon-street Hotel, and published in the *Mining Journal* under date, June 26, 1880, Mr. W. H. Richards stated at that meeting—"There was one point which was omitted in your prospectus, and it was most important. You omitted to say one word about the Gongo Soco. Speaking as we do in Brazil, there is really no distance between your property and Gongo Soco—there is a mere gap or valley between you. The Gongo Soco is at a point of a very high mountain, which mountain chain would go on to join the Sierra Piedade."—3. At the first annual meeting of shareholders, held at Palmerston-buildings, and also published in the *Mining Journal* under date June 25, 1881, your late Chairman told you at that meeting—"What induced him to go into the concern was that some years ago, at Aberystwith, he met with Capt. Martin (not Capt. Martin who had been alluded to in the prospectus), and Capt. Martin told him of this mine, and said it was close to Gongo Soco, from which they had sometimes taken out from 50 to 80 lbs. of gold per day, and he said he had the same formation."—4. If Capt. Martin was the Captain Thomas Martin formerly connected with the Cambrian Mines, he was known to me for some years before he retired from Brazil; he had a most varied experience in gold mines, and his ability as a practical miner ranked high. I believe some years ago he was employed at Gongo Soco as mine captain. I may mention that, as far as my experience goes, there are no operations in mining that require more care, attention, and watchfulness than those in jactings formations, and, as I have before stated, when following an auriferous stream, when you say when a rich vein may be struck, it is a matter of method. I have also mentioned on a previous occasion that it is the general opinion of experienced jactings miners that wherever auriferous jactings is discovered there are riches to be found somewhere. Referring to the samples alluded to in my report I would mention that no one could have been more careful than I was about this; the samples were not rich, and merely showed that the mine was auriferous at surface, and I need hardly say that this has been fully borne out by your manager at the mines. I think I am correct in stating that at the last general meeting of shareholders held on Aug. 1, 1882, only about 6 ozs. of gold had been obtained; since that time the amount of gold received from the mines is 13 lbs. Besides this your manager writes that the produce from Nov. 20 to Dec. 18 was 3 lbs. 3 ozs., making 21 lbs. 3 ozs., or about 20 lbs. 9 ozs. more than when you last met about seven months since, but the produce is only up to Dec. 18, 1882. This, I think, you will agree with me is a decided improvement, and it may not be amiss to mention here that I think we may look forward for a signal improvement in the reduction department. It has been stated that the stuff coming from the mines is very soft and has been difficult to treat, the stamping mill choked, &c.; this may account for the assay of gold produced from the tallings. I do not mention this by way of disparagement of your manager, on the contrary, I think he is a sharp, shrewd person, and from his letter under date of Jan. 14, he says—"I have discussed with Mr. Treloar the new arrangement of canoes I am erecting for a greater dispatch of soft lode stuff; a similar method was adopted years since by Mr. Treloar, and answered. When last in Brazil I saw these canoes at work at Pitangui Mines, and I should say such would be very suitable, when erected at Descuberto, for the treatment of the soft lode stuff, and, no doubt, would be a success, and produce more gold than if treated at the stamping mill alone. I would call your attention to the increased amount of gold obtained, since you last met here, derived from one stamping mill, with indications of improvement in depth, and if you take all matters into consideration, the least that can be said is that in the Descuberto Mines you have a property worth looking at. I have given a true and full statement, and I will not retract a word from what I have said there. (Cheers.) I have spoken to Mr. Wilson in a friendly way; but I never asked to come on to the direction, and I will leave to-morrow if you please. Mr. Wilson in his letter says he was induced to come into this mine from what he heard from Capt. Martin.

Mr. WILSON: I spoke of the district. I had never heard of the mine until I came into the company.

The CHAIRMAN: Having read Mr. Wilson's letter of resignation, Mr. WILSON explained that on Jan. 15 Mr. Mansell invited him to his office, and when he got there he found two of the directors, and Mr. Parrick, Mr. Naylor, the other member of the board, being in Paris. It appeared that Mr. Tregellas had received a letter from a relative in the neighbourhood of the mines saying that the manager had asked him to send another gold washer as there was more gold coming down. The board had received no information by that or the two preceding mails, and Mr. Mansell suggested that they should telegraph out and ask whether the report was true. He (Mr. Wilson) objected to this on account of the expense, pointing out that the French mail would be coming in on the following day and would probably bring in the advice. This proved to be correct. The French mail brought in letters from Mr. Geach, and duplicate letters showing that some of his communications had miscarried. Mr. Geach reported that he was going to put better stone through. Mr. Mansell made some disparaging remarks and said that some of the shareholders had no confidence in the directors, and that he was going to get up an indignation meeting. Mr. Wilson then proceeded to refer to the difference between Mr. Mansell and himself leading up to the election of Mr. Mansell, and, consequently, his own resignation.

Mr. SNEEL pointed out that this was a special meeting called to consider Mr. Lean's report, and he suggested that "personal squabbles" might be left out of the question.

Mr. WILSON went on to say that he heard privately before Mr. Geach's report—or rather the second copy, for the original and the press copy did not come to hand—he heard privately that Mr. Lean's report would not be favourable to the future working of the mine.

Mr. SNEEL: On what date did you hear from Mr. Geach that the report would not be favourable?—Mr. WILSON: On Oct. 24, I think.

The CHAIRMAN: It was a private communication to you; we did not hear it. Mr. SNEEL: When did you resign?—Mr. WILSON: On Jan. 23. He added that Mr. Geach did not have charge of the mine for at least six months after the formation of the company. Mr. Mansell asked him whether Mr. Geach would go out.

Mr. MANSELL said he never saw Mr. Geach before the company was formed. A SHAREHOLDER: Is Mr. Lean here in England?—The CHAIRMAN: Yes; he is here, in the outer office.

Mr. SNEEL: For whom was the first report of Mr. Lean written, and who paid for it?—Mr. WILSON: I do not know.

Mr. F. W. MANSELL said the shareholders were all aware that since Mr. Geach had the management of the mine there had been constant complaints as to the vagueness and uncertainty of his reports. Many of his friends were largely interested in the mine, and he himself had put 5000. Into it, and he and his friends were naturally anxious that there should be regular information. He had over and over again shown letters of complaint from his clients begging him to write to Mr. Geach on the subject, and after waiting two months and five days without a word from the mines, it was not to be wondered at that he was a little indignant. Some blame had been attached to him for agitating the matter, but in the interval a private letter was received saying that Mr. Geach wanted a new gold washer to concentrate the larger amount of gold which was coming down. This was very satisfactory; but surely this should be communicated to the shareholders in a regular way and not in a private letter. (Hear, hear.) The fact that neither the original report nor the press copy came to hand led to the inference that the original and the press copy were never sent. Mr. Lean on his arrival refused to give a copy of his report unless they gave him 2000, or allowed that amount from the sum paid him before his starting. He contended that it was shameful to keep shareholders in ignorance month after month while their capital was being swallowed up without any results. (Hear, hear.) Mr. Wilson got reports by every mail, and knew long before the shareholders or the board the information as to Mr. Lean's report, and he retired from the board before the report was received.

Mr. WILSON: Because I was insulted by you. Mr. Wilson then read a private letter from Mr. Geach, and said that such information as he received he communicated to the board.

The CHAIRMAN, in reply to Mr. SNEEL, said Mr. Lean was appointed to go out by the board. He was absent on account of his health at the time.

Mr. PARRICK: Have you heard a rumour that if this property is wrested from this company it will be worked privately?—The CHAIRMAN: There have been a great many rumours to that effect.

Mr. WILSON, in reply to a question, said they had several certificates with Mr. Lean as to his truthfulness. He was recommended to them by Mr. Hamilton, but he could not say what experience he had had in gold mining.

Mr. John Lean was then introduced.

Mr. SNEEL: No doubt Mr. Lean has seen the report in the *Mining Journal* some time ago. All I wanted to ask is, which is truth, the statement in the *Mining Journal* or the present one?—Mr. LEAN: At the time the letter was written there were some interested parties who asked me to write something expatiating on the prospectus and reports.

Mr. SNEEL: Who were the parties?—Mr. LEAN: It was some of the people interested in the property who asked me to write something in allusion to the prospectus and reports—if I could expatiate upon them, and if I could not, I had no interest except to serve my friends. (Laughter.)

The CHAIRMAN: And to get the British public to invest.

Mr. LEAN: Taking it for granted that the prospectus and the reports were as true as I should have written myself, I did write upon them—(laughter)—but it is quite evident that my letter was based entirely on what they had written—(laughter)—in fact, what I wrote was merely based upon the prospectus and the written reports.

Mr. SNEEL: What is the last report based on?—Mr. LEAN: When I arrived in Brazil and found things were not in accordance with what had been represented, I at once tried to find out the priest and the public notary whose names you see in my letter; but the priest had died within the year, the public notary had gone out of the neighbourhood, and I could see neither. The report I have now written is from what I have seen. It is the perfect truth, and I defy the world to say there is one word in it which is not perfectly true.

Mr. SNEEL: On Oct. 23, 1880, you say, "All these places and mines were perfectly known and familiar to me." Is that a fact or not? (Cheers.) It is a fact, and I have heard Mr. Lean any more. What can we think of a man who would make such a statement?

Mr. LEAN: Forty years ago I heard at Gongo that the Descuberto was a rich mine. Mr. Lean added that when at the mine several tons of stuff were brought from each of the points, he having nothing to do with the selection. He had given the result of seven different stampings, amounting in all to 1070 tons, and the average result was a yield of about one-twelfth of an ounce of gold to the ton. It might be said that an ounce of gold per ton had gone down the stream; but he could not believe it. (Laughter.)

Mr. SNEEL: From whom did you hear the mines were to be reported on a second time?—Mr. LEAN: I think from one of the Messrs. Tregellas.

Mr. T. TREGELLAS: I certainly did not ask you to go out, nor did I moot it.

Mr. PARRICK: What experience of Brazilian gold mining had you had before you went out?—Mr. LEAN: I was there five years at first.

Mr. PARRICK: What age were you then?—Mr. LEAN: From 21 to 25.

Mr. PARRICK: Why did you leave?—Mr. LEAN: Because I had filled up my time.

Mr. PARRICK: In what capacity?—Mr. LEAN: As a working miner at the Gongo Soco Mine.

Mr. PARRICK: Were you ever employed at the St. John del Rey Mine for any purpose?—Mr. LEAN: I was a mine captain there.

Mr. PARRICK: For how long?—Mr. LEAN: I soon returned; about a week.

Mr. PARRICK: Why did you leave?—Mr. LEAN: Because I quarrelled with the manager.

Mr. PARRICK: Why?—Mr. LEAN: Do you want to know?

Mr. PARRICK: If you please.—Mr. LEAN: I do not think I shall answer you what for. (Laughter.)

Mr. PARRICK: What other experience of Brazilian gold mining have you had besides the week at St. John del Rey?—Mr. LEAN: No other than in the Gongo Soco Mine, when I was from 21 to 25 years of age. For ten years I was in Chili.

A SHAREHOLDER: Is there any gold mining there?—Mr. LEAN: There is copper, silver, and gold; but not much gold.

Mr. SNEEL: When did you first take to writing flourishing reports for prospectors?—Mr. LEAN: Never in my life.

Mr. SNEEL: Never before this time?—Mr. LEAN: That was founded on the prospectus placed in my hands.

Mr. SNEEL: But you state it as a piece of positive information.

Mr. TREGELLAS remarked that in Brazil everything was registered, and Mr. Lean could have seen times all the particulars from the registry office without going to old women for information. (Laughter and cheers.)

A SHAREHOLDER: Have you ever been employed to inspect and report on any other gold mine?—Mr. LEAN: We had gold mines in Chili.

The SHAREHOLDER: Will you answer the question please?—Mr. LEAN: I do not remember that I was ever employed to report and inspect upon a gold mine any further than that we had our own gold mine in Chili.

Mr. SNEEL: Did the directors ask you any questions with reference to your capabilities and knowledge of gold mining?—Mr. LEAN: I have had more experience than any man in the world. (Laughter.) I am an old man now and I began in my infancy.

A SHAREHOLDER said the report was written as if the circumstances were known to Mr. Lean personally, and the auriferous lodes were spoken of, which Mr. Lean now said did not exist, and the particular attention of capitalists and investors was drawn to the mine.

Mr. LEAN: That was written on the authority of the prospectus. In reply to Mr. SNEEL, Mr. Lean said he had never been paid for his report, but he believed he had suggested that he should be paid.

Mr. MANSELL: We never received the original report nor the press copy, and when Mr. Lean was present he had his report, and distinctly refused to give a copy of it, though we had paid him 3000. for it, unless we gave him the 200. advanced to him when we employed him to go out. ("Shame.")

A SHAREHOLDER: You should have enquired about the man before you employed him.

Mr. SNEEL: I had nothing to do with that. He refused last week to attend this meeting unless we paid him 50. ("Shame.") His report was at last handed to the board, and he was asked to initial every page, as he had promised to do. Subsequently to that the postscript was put in printed. We told him at that meeting that Mr. Geach had sent over to say that he had got 3 lbs. and odd ounces of gold for the month, and he said "It's a lie. He never got it out of the mine; and yet this postscript is put in by Mr. Lean's own writing, and figures. Then it will be seen that these two last stampings yielded an average giving the of fully 3 lbs. weight of gold a month." I do not believe a word of the report. (Cheers.)

Mr. PARRICK: Is it true that the postscript, which Mr. Lean says contained a lie, was added to his report after he handed it to the directors?—The CHAIRMAN: I think we were the first to bring that before Mr. Lean's notice, and he said "I do not believe a word of it, and if Mr. Geach told you that I say it is a lie."

The statement was confirmed by Mr. Tregellas, who was present at the board meeting at which the report was handed to the directors.

Mr. PARRICK: Is it true that that statement contained in the postscript, which is now initiated by Mr. Lean, was when you notified the fact denounced by Mr. Lean as a lie?—The CHAIRMAN: It is the fact.

Mr. LEAN produced his note-book to show that the facts recorded were entered, but that he had omitted to mention them in his report at first.

The CHAIRMAN: That was written after you were in England.

Mr. LEAN: I despise you too much to answer. (Laughter.)—Mr. Lean then left the room.

Mr. PARRICK: It is said that but for the interposition of that gentleman Mr. Lean would have received 1000. more for his services.

Mr. TREGELLAS: I was responsible for that.

Mr. PARRICK: Is this man capable of giving an opinion? Is his opinion

worth anything?—The CHAIRMAN: I think it is the opinion of the meeting that it is worth nothing. He brought over some so-called water or rubbish, which, upon being assayed by Messrs. Johnson and Mathey, gave $\frac{1}{4}$ oz. of gold to the ton as an average. [The Chairman read the assay report giving the details.]

Mr. TREGILLAS said the richness of the tailings was probably due to the fact that Mr. Geach was stamping some soft lode stuff, from which it was very difficult to extract the gold. Mr. Geach in his last letter spoke of an improvement in the lode.

Mr. SKELL thought the shareholders should express their sense with regard to the exhibition they had just had of a man who would quibble and turn and say all sorts of things. He had never seen a more disgraceful exhibition in the whole of his experience. (Hear, hear.) He did not, however, think the directors were free from blame, and he thought the late Chairman, who was a director of the Richmond Company, particularly to blame for sending a man out who had had so little experience in gold mining.

Mr. TREGILLAS said he was a director at the time. Some of the shareholders were very pressing in asking that somebody should inspect the mine. He did not know anybody who would go out; but Mr. Lean came with several testimonials speaking highly of his reputation, and he was appointed, though he (the speaker) at the time expressed the opinion that Mr. Lean was too old a man to send out.

The CHAIRMAN, in reply to a question, said that Mr. Geach in his latest advice said he hoped to bring his labours to a successful issue. The Chairman also stated that the directors had decided to take only half their fees for the present.

Mr. PETTIFOR proposed:—"That as Mr. Lean had so little experience of Brazilian gold mining, and as the statements which he has made are so unsatisfactory, his report, dated November 1, be rejected by this company."—Mr. TURNER seconded the proposition, which was carried unanimously.

The meeting closed with a vote of thanks to the Chairman.

CANADIAN COPPER AND SULPHUR COMPANY.

An extraordinary general meeting of shareholders was held at the offices, Queen-street-place, on Thursday—Mr. J. W. MACLURE in the chair—to confirm a resolution passed at an extraordinary general meeting of the company, held on Feb. 15, authorising the company from time to time to reduce its capital.

Mr. W. G. WILLIAMS (the secretary) read the notice calling the meeting.

Mr. BOTTOMLEY said he should like to bring before the meeting a circular which he had received with respect to the reduction of the capital. It was an anonymous circular, and stated the capital had been already squandered, and the author stated he would take steps to bring the company to book for its debenture stock. Was there any danger of that sort, and in what respect does the company stand with respect to that?

The CHAIRMAN formally moved the confirmation of the resolution, which was as follows:—"That the regulations of the company be altered by inserting the following article next after article 14—'14A. The company may from time to time reduce its capital in any manner allowed by the Companies Act, 1862 to 1880, or any of those Acts.' He went on to say that he really intended simply to move that resolution in a formal way, knowing that the directors had the confidence of the bona fide shareholders in the concern, but as an honourable shareholder had asked a question about an anonymous circular he would answer that question. Individually he never took any notice of anonymous communications; they were generally of a character unworthy of notice, and done for some purpose—either to create an unkindly feeling (as was occasionally done by the sending of anonymous post cards), or doing injury to the company for the benefit of some individual clique. (Hear, hear.) The object of this circular was to damage the price of the shares of this company; and when he told them that one member of the board had been asked to lend his shares through a broker, as there was a large 'bear' account, and consequently a heavy backwater, he thought that the object of the circular would be payable to the shareholders. (Hear, hear.) There was one statement in the circular which was true, which was that accounts might be so handled as to show anything. The gentleman who wrote the circular was a master of circular writing, for he had handled the company's accounts in a manner which admitted of no justification. The writer was inaccurate with regard to the quantity of ore which was in sight at the time the present management took office, and also as to the quantity which was coming forward regularly from the mine. He did not know whether it was necessary for him to go through each item in the circular. ('No, no,') He really thought the circular was beneath contempt. (Hear, hear.) He could only say that, in the month of January the production, as he stated at the last meeting, was 160 tons, and in February, which was a short month of 28 days, including four Sundays, there was a further increase.

A SHAREHOLDER: An increase over the previous 160 tons?—The CHAIRMAN: Yes; he had a very strong suspicion who was the writer of the circular, and he agreed with the opinion, which would be thoroughly endorsed by Mr. John Taylor, that in Capt. Bennetts they had one of the most honest and most intelligent mining captain to be found in Canada. (Hear, hear.) Of course, as he stated at the last meeting, they were a long distance from Canada, and could not see the reserves of ore for themselves, and must take the opinion of a practical, able, and conscientious man like Capt. Bennetts. He might repeat what he had before said, that Mr. Bird, one of the directors who had recently joined the board, was going to America, and had promised to visit the mines, and, at an early meeting would, no doubt, give, from his own personal experience, his opinion of what the condition and prospects of the mines are. When the present board took office there were 25,000 or 30,000 tons in reserve, and, therefore, he presumed the writer of the circular, when he stated the reserves at 3000 tons, omitted a cypher or two. At any rate the present reserves were very much in excess of what they were when the present board took office. The ore, too, was improving in quality, and the quantity was also increasing. For the first time the directors had received an intimation that ore had been got from the St. Francis Mine, which was a mine that Capt. Bennetts had always looked upon with great favour. The directors had ordered samples to be shipped home, and in a letter received that morning, Capt. Bennetts stated that the samples were on their way home as well as the bulk. Of course the bulk was not large, but Capt. Bennetts stated that it contained 30 per cent. of copper. With regard to the mundics, about which the directors had several times been asked, the reason why none of the mundics had been sold was that they contained copper, and were available for the company's own use; and, therefore, the directors did not choose to sell them at the comparatively low price which mundics would command. As regarded selling a certain portion of the timber, which was found fault with in the circular, everybody must be well aware that the timber was an article which the company had as much right to sell as the ore, and without in any way depreciating the property any more than it would be depreciated by the sale of the ore. Moreover, the value of the timber was taken into account at the time the property was obtained by the company. Neither he nor his friends in the North were frightened by this anonymous circular, and had determined to hold their shares, and did not intend to sell them at a low price on the Stock Exchange, however much it might be attempted to depreciate the value of the shares on the Stock Exchange in order to suit the 'bear' transactions of individuals. (Hear, hear.) He recommended the shareholders to hold their shares, and to place their confidence in people who were not ashamed to stand up and say that they believed the company was in a sound condition, and that the accounts were properly rendered. (Cheers.) As regarded the probability of the debenture-holders winding up the company, any shareholder must know that as long as the interest was paid the debenture-holders were perfectly powerless; and he might mention that, when the time came, those debentures could be replaced in other quarters where they would be permanently held. The directors confidently recommended the shareholders to support the resolution for the reduction of the capital. The resolution, when passed, would give the directors power to do at the earliest possible moment; and whilst he never liked prophecy, because in all mines there was always a considerable amount of speculation, yet if they passed the resolution, and the capital was reduced, he had no doubt that from time to time the directors would be able to render the shareholders very satisfactory accounts. (Hear, hear.) He could not express too strongly his opinion of the ability, energy, and honesty of Capt. Bennetts; so long as matters were conducted by Capt. Bennetts he was sure that no accounts would be sent home which could not honestly and conscientiously be sent. In another letter Capt. Bennetts stated that—"During the past week there has been an improvement in the general appearance of the vein at the Hartford Mine." In another letter Capt. Bennetts said:—"I am glad to tell you that the severest part of the winter has passed away, and the season of active operation is close at hand; and I trust to make an increase in the regularity, which will be gratifying to you." Knowing the cautious way in which Capt. Bennetts had always written, he thought that that statement must be most gratifying. (Hear, hear.) He thought those statements must convey conclusively to the shareholders that the mine and smelting-works were going on as successfully as could be wished.

Mr. SMITH (of Sunderland) said he thought the shareholders would be somewhat better pleased if the directors would let them know more frequently what was going on at the mines. He had received the anonymous circular, and he had no doubt that such circular had some influence on the minds of timid shareholders. He was gratified to hear that the most recent reports were of such an encouraging character; but he thought if the reports from the mines were of a less stereotyped character, and gave a little more varied information, they would be more satisfactory and acceptable to the shareholders. He asked whether the directors had any idea when the shareholders might expect a dividend.

Mr. JOSEPH said he could quite understand Mr. Smith's wish to see the reports from the mine more varied, but he presumed that if reports were sent home genuine and truthful it was very difficult to vary them. The amount of work done from month to month could not be very much varied, and, therefore, there could not be much variation in the reports. Of course mining was a speculation, and those who went in for it must be content to take the success when it came, and must not be depressed if that success was a little delayed. Possibly the anonymous circular might have some influence upon the minds of some country shareholders. If any very good news were received the directors would doubtless take care to circulate it amongst the shareholders. As regarded the circular, the author might at any rate have written it in a grammatical and intelligible form, for nobody could well understand what the author meant to say. The author gave certain figures, and drew certain deductions, but the deductions were in contradiction to the figures.

Mr. JOHN TAYLOR said there was no doubt that the figures were entirely wrong. Mr. WILLIAM ABBOTT: This meeting is called for a particular purpose—to authorize the directors to reduce the capital, and I think that the explanations of the Chairman and of Mr. Taylor are so satisfactory that I would suggest that a report of this meeting shall be sent to every shareholder. The statement of Mr. Taylor is especially satisfactory. No doubt economy is the first consideration; at the same time, I think the shareholders have a right to know the satisfactory statements which have been made, and that they have been substantiated by Mr. Taylor. (Hear, hear.)

The CHAIRMAN said that, although the directors did not send out proxies, yet a large number of proxies had been sent in support of the resolution for the reduction of the capital. As regarded a dividend, he thought it was not so far off as some people imagined; at any rate, the efforts of the board and the management would be exercised to bring about a dividend at the earliest possible moment. By reducing the capital the rate of dividend would be more satisfactory.

Mr. JOHN TAYLOR, referring to the similarity of the reports from the mine, said that Capt. Bennetts was bound to report the state of the mine as it existed from time to time. But if Mr. Smith wanted the reports to contain something in the way of prophecy, he might mention that no agent connected with his firm was allowed to send anything in the shape of prophecy, but simply to send home the exact position of things, which might account for the monotony of Capt. Bennetts' statements. (A laugh.) He might mention that his uncle, Mr. Richard Taylor, had known Capt. Bennetts from a boy, and had the utmost confidence in him.

The resolution was then put and carried.

On the motion of Mr. WILLIAM ABBOTT a cordial vote of thanks was passed to the Chairman and directors, and the meeting broke up.

BEUNO CONSOLS COMPANY.

The annual general meeting of shareholders was held at the Clarence Hotel, Manchester, on Feb. 26.

Prof. FAWCETT (of Conway), in the chair.

The SECRETARY read the notice convening the meeting, and the reports of the directors and manager, together with the balance-sheet were submitted and adopted.

The directors are highly gratified in being in the position to show the shareholders how carefully, with what remarkable results their money has been expended. The extraordinary success of the Beuno Consols Company, and although several shareholders have been to examine the property for themselves, still the directors would urge all desirous of doing so to make an early inspection, and thus satisfy themselves of the enormous quantity of ore now to be seen in the various workings. The directors pride themselves upon having secured a splendid and most powerful engine, capable of doing all that can be required as regards pumping, winding, crushing, and cleansing the ore, also with having erected a substantial engine-house, offices, and other works, tramways, and roads, in fact, everything is now in a fit and proper state for a vigorous working of these splendid mines. It will be observed that the accompanying balance-sheet is complete for the whole term of occupation and working by the company, instead of dating from the statutory meeting which was held in due course some 12 months ago, and which is, according to the Companies Act, a "general meeting," and shows very concisely what has been done with the money, but a personal inspection can only give an adequate idea of the accomplished facts. In submitting the manager's report, the directors desire to state that they can verify everything that is said, and as it enters into particulars, will, no doubt, be read with much interest by the shareholders. It will be observed that the thorough sinking of the principal shafts of the mines, and the drivings on the various lodes have occupied almost the whole year, and a cost of some 2000*l.* has been incurred and paid; but this proceeding has to be enhanced the value of the property, that it is fully admitted by all those shareholders who have visited the mines during the last few months, that the directors have taken a very decided and proper action, worthy of all praise, the result being that the mines are now practically in a dividend-paying position. Several tons of ore have been brought to the surface, but simply that which was met with in the drivings or sinkings.

MANAGER'S REPORT.

JOHN WOOLLOCK: To commence, I will begin at the adit level, opposite the engine-house; this level has now been thoroughly cleared of debris, which had accumulated for something like 30 years. We have laid a tramway down, and retimbered where required for 660 ft.; we have stowed in the back or roof of the level 48 ft., from which stope we have obtained several tons of splendid lead ore, and there is a strong course of ore now being worked on. We have driven west 18 ft., and a small string of ore going in that direction, and I am pleased to inform you that it has opened out remarkably well, from which we are now winning good ore for the dressing-floors. I caused a small stope to be sunk 15 ft. in depth at the bottom of this level, to ascertain if the ore improved as it went down in depth; this has also turned out exceedingly well for ore. At the commencement of operations it was thought that this level had been abandoned by former workers, in consequence of it becoming exhausted; but on a close official inspection and examination, made by myself, accompanied by Mr. Entwistle, of the firm of Cunliffe, Entwistle, and Co., it was decided that a trial should be made to see what results would arise therefrom, as we were both confident that an enormous amount of stuff must have been won formerly, and our experience told us that depth only was required to make the new discoveries. I have no hesitation now in saying that thousands of tons of ore underlie this level, and every day's working is proving the assertion, so that you will readily see that we have a great mine in this one place alone. I consider this of immense importance.—Engine-Shaft: This shaft has been reopened to a depth of 30 yards, and a new ladderway fixed, and shaft properly divided with timber, and ready for pump, which is now on the ground being fixed.—Wood Shaft: A good roadway ready for tram rails from engine-house up the mountain side to this shaft is now complete; at the bottom of the Wood shaft we have sunk 15 ft., then we drove south 105 ft.; here we found a strong masterly lode, composed of spar and solid blocks of ore, some of them weighing considerably over 1 cwt. each; there are now several tons of ore on the surface won from this driving; but, gentlemen, there is a still greater discovery to be made here; we intend to drive a cross-cut for about 40 yards, to intersect another champion lode, which has yielded an enormous quantity of ore on the adjoining property.—New Shaft: At the bottom of the New Shaft, the 'house' of this shaft has driven a cross-cut west 30 ft., and intersected the well-known champion lode, and is very prolific for ore; we then drove on its course 93 ft., obtaining ore all the distance, but as I have not seen the footwall of the lode I was anxious to ascertain the full width of the lode, consequently I caused the men to drive east, and after doing so for 24 ft. to my great satisfaction a really massive course of ore was found on the wall, worth as it now stands fully 3 tons of ore per fathom of ground, and going towards the celebrated Millar lode, which runs entirely through the set; this, in my opinion, is highly gratifying.—Quarry Lode: Here we have sunk a small shaft, 42 ft. deep, where we found ore all the distance, but the water was very troublesome. I have, therefore, stopped for the present the working. We have now about 5½ tons of dressed ore in the lead shed, and our ore washer estimates what is now on the surface will yield 14 or 15 tons more. In conclusion, I cannot but congratulate you on the very extraordinary discoveries that have been made; and as the engine-house, engine, and other machinery is now complete, we may fully look to a season of good results, and I have no hesitation in saying that large dividends may be fully relied on for the future.

The CHAIRMAN said: It very rarely falls to the lot of the Chairman of a young mining company to be in the happy position to congratulate his audience on the immense success which has been achieved at our mines during the last few months. I need only draw your attention, gentlemen, to the elaborate report supplied to us by our manager (Capt. Woolcock) to prove the successful operations in the workings which have been the means of opening out such enormous reserves of silver-lead ore. I see around me several gentlemen who I know have personally inspected the mines both above and below ground within the last few weeks, and can therefore vouch for and verify in the most minute particular all contained in that report. I will make a few remarks about the balance-sheet. It will be observed that for the almost trifling sum of 3000*l.* the whole of the enormous works of the last 18 months have been performed. I believe I am right in saying that no other mine in the county of Flint can show a tithe of our results for so small a sum, and bear in mind that this includes about 1000*l.* expended on machinery such as our splendid engine, &c., and also includes all the cost of formation, &c. At this stage, gentlemen, I think I cannot conclude better than by referring you generally to the directors' report now before you, and to the impression upon you which it has made in my opinion, and indeed in the opinion of all practical men with whom I have come in contact, and who have personally visited our mines, that you are in the possession of a property which has already increased many, and will increase one hundredfold. (Applause.) I do not know whether our manager has anything further to state, but for your edification I will allow him to speak for himself. (Hear, hear.)

Capt. WOOLLOCK said: I have an addendum to make to my report, and that is that only a few days ago I had the great satisfaction of recovering a new vein of ore of some 7 or 8 in. in thickness, and running in a most favourable direction for the mine. Those gentlemen who have visited our works will doubtless know the size of our tram wagons; well, gentlemen, from this new discovery within a brief space we succeeded in sending to the surface one wagon full of ore weighing from 12 to 15 cwt. This alone fully proves that we have immense reserves ready to come to the surface. We have now on the surface sufficient orestuff that will yield when cleaned and dressed about 30 tons for the market, and the pile is increasing daily.

Mr. JOHN FURNESS said: I would support what Capt. Woolcock has just stated. I may state that I have the utmost confidence in the great success of the Beuno Consols Company. I have been underground many times, and can, therefore, vouch for the precious metal to be seen in the workings. If the yield of ore is any criterion of the success of a company, and I think you will all agree that it is the main point, then, gentlemen, be assured that success is guaranteed to the company of which I am proud to be a member. (Applause.) I think pretty certain that, like another company with which I am connected (Mostyn Consols), large and continuous dividends may be fully relied on. Mr. FURNESS said: I have been in the opinion of all practical men with whom I have come in contact, and who have personally visited our mines, that you are in the possession of a property which has already increased many, and will increase one hundredfold. (Applause.) I do not know whether our manager has anything further to state, but for your edification I will allow him to speak for himself. (Hear, hear.)

Mr. J. ENTWISLE (of Cunliffe, Entwistle, and Co., shareholders to the company) said: I rather fancy, gentlemen, that I have a little surprise in store for you, and one that will enhance the value of the Beuno Consols shares very considerably. Now, it is a well-known fact that Holywell and its district possess no waterworks, and that the inhabitants are entirely dependent upon the supply to be derived from St. Winifred's Well, and what could be obtained from the clouds in wet weather. Now, the Well happens to be situated in my opinion (not having taken the levels) some 200 ft. below the town proper; the consequence is that the water supply has to be taken up to the town in barrels or carts. This you will all admit is a great drawback to the inhabitants generally. Many schemes, I believe, have been mooted to supply this most extraordinary defect, and the last one I am informed was a company who obtained parliamentary powers for carrying out their scheme. What this scheme was I only obtained a knowledge of some short time ago. By what permission, if I am not tiring your patience—"No, no, proceed,"—I will detail the scheme so far as my knowledge is concerned to you. I have been informed that the Parliamentary powers included the supply of water to Brynford, on the top of the mountain; to Holywell, about one-third down the mountain; to Greenfield, at the foot thereof (where the railway station called Holywell is situated); and, I believe, to Bagillt, some one-and-a-half or two miles distant therefrom, nearer Chester. Well, this grand scheme was to have a small reservoir (which has been made) within some two or three hundred yards of the Well, on the opposite side of the high road and nearer to Greenfield. The water was to flow from the Well into this reservoir, and heavy forced pumping-engines and machinery were to be erected to force this water into a reservoir to be made some 2½ miles above the town of Holywell, so that it could supply the pipes to be laid along the 'highway and streets. However, this grand scheme some four or five years ago went into liquidation, and I am informed and believe that the Parliamentary powers expire this month, but I am given to understand that a gentleman who has purchased the rights of this defunct company is now or about to apply to the Board of Trade for an extension thereof; be that as it may I know not. Now, I wish to draw the attention of all you gentlemen who have been to the mines of the Beuno Consols Company, and have been to the engine-house and have seen the engine-shaft, to the fact that in that special shaft we are inundated with a vast influx of water. You will all have observed that the engine-shaft stands 100 feet higher than the main street of Holywell, and some 300 feet higher than the (main) reservoir above alluded to. You will likewise have observed that within 25 yards of our engine-house there is a disused quarry of pretty large dimensions, the bottom of which is some 3 or 4 yards below the high road adjoining. Now, gentlemen, I well remember, some few weeks ago, standing at our engine-house door in company with a well-known scientific gentleman of Holywell, Mr. J. J. Williams, civil and mining engineer. I was at the time discussing with him the best means of removing the water from our engine-shaft, and what we should do with it. I saw no other means than making a shaft under the high road, and permitting the water to run down the valley to the river below, and named that to my friend, when he quietly remarked, why not make a reservoir of that old quarry, and supply the town of Holywell with water. The scheme flashed through my brain instantaneously, and I saw at a glance that what a trifling expense the whole matter would be, and I immediately caused a large sample of the water taken out of the shaft to be sent to the city analyst (Mr. C. Estcourt) at Manchester to have its purity tested. Gentlemen, his official report is that the water is perfectly free from mineral, but much harder than Manchester water. I can see from your smiling faces that you have already grasped my idea of what should be done. Well, gentlemen, we have the engine-power, we have the massive pumps, we have the reservoir almost made, and we have some 10,000 gallons of pure water per hour. I must now leave the matter in the hands of the directors, who, I believe, are shrewd enough to avail themselves of this most extraordinary opportunity. Here, then, is a source of income to the Beuno Company, that will enormously enhance the value of its property. (Loud and continued applause.) It was then proposed, and carried unanimously, that the directors for the ensuing year be: Professor Fawcett, Conway; and Messrs. John Furness, Alexandra Park, Manchester; C. R. Breach, Dee House, Parkgate; and Humphrey Lewis, Conway. It was also proposed, and carried unanimously, that Messrs. Wm. Poole and Co., auditors and accountants, Princess-street, Manchester, be the auditors. When, after several observations from various gentlemen present, including Messrs. Horner (the solicitor of the company), Wilkinson (the secretary), and Davies, a vote of thanks was cordially given to the Chairman for his urbanity whilst presiding, when the meeting terminated.

THE ENGINE, BOILER, AND EMPLOYERS' LIABILITY INSURANCE COMPANY.—At the general meeting of shareholders, held at the office of the company, King-street, Manchester—Mr. R. B. Longridge, the managing director, presiding—a dividend at the rate of 5 per cent. on the paid-up capital was declared: 1000*l.* was carried to reserve, and after writing off 15 per cent. for preliminary expenses and depreciation of furniture, instruments, books, and stationery, the balance was carried to next account. The Chairman congratulated the shareholders on the progress of the company during the last and previous years. The number of boilers proposed for insurance during the last 12 months had considerably exceeded that of any previous year, irrespective of the boilers of the War Department of the Government at the various stations throughout the United Kingdom, the contract for which had been completed on the last day of the year.

[For remainder of Meetings see this day's Journal.]

THE KOHINOOR OR WHITE DIAMOND (JAGERSFONTEIN MINE) MINING COMPANY.

The report of the directors for the half-year ended Dec. 31, prepared for presentation at the meeting at Jagersfontein on Jan. 29, states that the accounts show a net profit on the six months of 5742*l.* 6s. 7d., after providing for maintenance of machinery and writing off tramway and plat accounts the sum of 2061*l.* 12s. for depreciation. The company was started without sufficient working capital, and in order to erect hauling gear the directors had to negotiate with the Bank of Africa a loan of 6000*l.*, which was reduced by half during the last six months, and the balance of 3000*l.* renewed until Aug. 11, 1883.

Under these circumstances, also considering the necessity of a fresh expenditure of increased plant for the proper and economical working of the blue ground, the profits are not available for dividends, and the directors propose to carry the balance forward. Notwithstanding many casualties and stoppages of 14 days during the half-year 4800 loads of floating reef were hauled out of the claims, and 92,950 loads of yellow ground washed at an outlay of 15,132*l.* 12s. 8d., yielding 9246½ carats of diamonds of the value of 18,832*l.* 17s. 4d. There were also 3401 loads of blue ground (top blue) laid on the floors during the month of December for pulverising and washing at a later period, and although the top blue ground in many mines is considered poor, the directors remark that a few good diamonds have been found in it in pinking.

The great fall in the diamond market affected most seriously the revenue of many companies, but the directors are glad to state that this company suffered but little, as no great stock was on hand at the outbreak of the crisis, and all the parcels shipped before fetched good profits over valuations. The funds on hand on Dec. 31 are estimated in accordance with the present market rates at a low figure, and the unpaid stock lying in London has, as per cable information since received, been disposed of, and will leave no loss. On the other hand, referring to the cases against illicit diamond buyers before the Special Court, the company must have been a heavy sufferer by thefts of diamonds; at the same time, the directors distinctly observe that this does not reflect on the company's officials, who are exonerated from any blame, but the inactivity of the Orange Free State officials must be deplored in not using more stringent measures to suppress the evils of the illicit trade. The searching of natives will come into operation in Kimberley and its neighbouring mines at the beginning of March, and the directors will use their utmost endeavours for the introduction of this system into the Jagersfontein Mine.

The water entering from the main reef into the company's claims hindered somewhat the working operations, and entailed a great expense of fuel for the additional pumping, but this difficulty was overcome by making with the committee of management a satisfactory arrangement, and obtaining free of any charge the loan for 18 months of one of its powerful steam-pumps. Mr. Lema, the former manager, resigned his appointment at the end of September, and the directors were fortunate enough to secure the efficient services of Mr. J. Hui.

GREAT WESTERN COLLIERY COMPANY.—The report of the directors to be presented to the shareholders at the next ordinary meeting of the company is as follows:—The directors beg to submit herewith an audited statement of accounts for the year ending Dec. 31. After paying the arrears of dividend to Dec. 31, 1881, upon the preference shares of class A there remained a balance of 9823*l.* 14s. 10d. undivided profit at Dec. 31, 1882. Out of this balance the past year's dividend on the preference shares of class A, 4505*l.* 10s. was paid on Jan. 1 last, leaving 5317*l.* 4s. 10d. for disposal at the meeting. The directors have recommended a dividend of 10*l.* per share upon the ordinary shares of class B, payable on April 1 next. This dividend will absorb 4532*l.* 10s. leaving a balance of 1319*l.* 14s. 10d., out of which the shareholders will be asked to remunerate the directors for their services during the past year, and to vote a moderate fee to the debenture trustees, in recognition of the services rendered by them at the reconstruction of the company. It is proposed that the balance of profit remaining shall be carried forward to the next account. The quantity of coal raised in the past year was 301,222 tons, which is 39,845 tons in excess of the quantity raised in the preceding year. Fifty new coppice coke ovens have been erected, and are now in use with very satisfactory results. The necessary plant for hauling underground by means of compressed air is being fitted, and will be got to work during the current year. The capital expenditure account having been closed, the outlay upon these new works has been placed to a suspense account, with the view of being written off out of profits. A substantial proportion of such outlay has already been charged against revenue, and it is intended to deal with the balance as early as possible. The directors are retiring by rotation are Mr. B. Lang and Mr. C. H. James, both of whom are eligible for re-election. The auditor, Mr. George Edwin Swithbank, is also eligible for re-election.

The report of the Bilbao Iron Ore Company for the past year shows a net profit, after payment on debentures and interest, of 26,481*l.*, making with the balance brought forward from 1881, including amount from suspense account, a balance of 42,181*l.* A dividend of 6 per cent. is recommended on the preference shares and 4 per cent. on the ordinary; 15,000*l.* is carried to the reserve fund, and 1049*l.* forward.

Lectures on Practical Mining in Germany.

CLAUSTHAL MINING SCHOOL NOTES—No. CCXI.*

BY J. CLARK JEFFERSON, A.R.S.M., WH. SC.,
Mining Engineer, Wakefield.

(Formerly Student at the Royal Bergakademie, Clausthal.)
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Drums for flat ropes are usually constructed with a cast-iron boss or nave keyed direct to the shaft, or especially where it is intended to wind from different depths, bolted to a muff which is keyed to the shaft. In both cases (though in the first it is necessary for this purpose) it is very usual to cut several keyways on the shaft to allow of the adjustment of the rope. To avoid the trouble of driving out of the adjustment of the rope. To replace it in a fresh keyway on the axle, the key has been made to slide in a radial slit or keyway in the nave of the drum, in which it is moved radially to and from the shaft by screws. Only one keyway is provided in the nave or boss of the drum. The boss or nave when of large size is cast in two diametral halves, sometimes in four semi-circular pieces bolted together, the radial joints of two of them coming opposite the centre of the other. The arms are generally made of wood, which fit between two ribs cast on the nave; very rarely are they made of cast iron. To lessen the weight they have been made of wrought-iron plates, stiffened with angle iron so as to give a T or H section. The arms are bolted to the nave best by bolts independent of those fastening the parts of the nave together. The outer ends of the arms are rounded or tapered off on the inside to guide the rope more readily between them, and are connected together by a rim of wrought or cast-iron; in the latter case formed of as many segments as there are arms. The ends of the arms are fastened between two projecting ribs on the middle of each segment.

The form of the head gear for supporting the winding pulleys is very various. In very rare cases the pulleys have been mounted direct on brickwalls. Usually the head gear consists of a wooden or iron structure; in the former case often mounted on two low walls. In the simpler constructions the head gear consists of two uprights, the plane passing through which is nearly vertical; the uprights incline inwards towards each other at their upper ends; they are connected together by two or more horizontal ties and diagonal cross ties. The more strongly built head gears have four uprights, which are all inclined inwards at their upper ends, and are likewise connected together by horizontal and diagonal cross ties. This structure is struted against the walls of the engine-house, or against strong anchor plates (fixed to two strong foundations) by two long struts attached to the head gear near the top, and which diverge slightly outwards from each other at or towards the feet of the struts. When the frame work of the head gear is composed of wood it is advisable to make the connections by means of iron plates and bolts. On the Continent, especially in those districts where the winter is very severe, it is very usual to enclose the head gear in a tower, but the more modern practice has been to leave them exposed, or merely to place a roof over the winding pulleys. Recently wrought-iron has come into extensive use for head gears, the uprights, struts, and ties being formed of plates connected together by angle irons, making a box, T or H section, or instead of plates the long corner angle irons are connected together by a lattice work of iron bars.

WINDING PULLEYS.

The minimum diameter which must be adopted for the winding pulleys depends principally upon the diameter of the wires which compose the winding rope. The bending of the rope round the pulley compresses those portions on the inner side, and stretches those on the outside. The amount of this extension or compression varies inversely as the diameter, and should not be so great as to injure the rope. The minimum diameter is found by multiplying the diameter of the wire by the modulus of elasticity of the material composing the wire, and dividing the product by the difference between the tension of the wires in the outer side of the rope, and the tension of the wires where the rope is not on the pulley, but on the straight portions of the wire leaving the rope. The usual diameter is 10 ft. to 12 ft., but in some cases reaches as much as 16 ft. A large diameter has also the advantage that the friction of the axle is less. The length of the axis is usually taken at from one-fourth to three-eighths of the diameter of the pulley. The greater the length so much the less is the liability of the pulley and rope to side oscillations. For small sizes the whole of the pulley is usually made of cast-iron, with the boss cast split radially in three or more portions. For large sizes only the boss or nave and the run of the pulley are made of cast-iron, the arms being of round bar iron or of wrought-iron piping. In the case of round ropes the outer end of the arms are cast in the centre of the rim, the inner ends of the arms being cast in the nave alternately at equal distances from and on both sides of the centre plane of the pulley. In the case of flat ropes the outer ends of the arms should be cast alternately in the two sides of the rim, so that the arms appear to cross each other. The groove should have the sides inclined outwards, and be accurately turned. Owing to the inertia of the pulley the rope slips on the drum at sudden changes of speed, and thus wears out a second groove in the bottom of the original groove of a width but slightly greater than the diameter of the rope. To obviate this various proposals have been made for lining the bottom of the groove with wood, indiarubber, &c.; some of these have been found only to increase the evil, and in other cases the material has been found unable to stand the great pressure of the rope upon them. To lessen the sudden strain upon the rope due to the starting of the engine, it is very usual to place the bearings of the pulley axle upon a packing of indiarubber or other elastic material.

The position of the winding pulleys depends on the position of the engine-house with respect to the plane passing through that portion of both winding ropes below the pulleys. If this plane is parallel to the axis of the winding drums, then the winding pulleys may be placed side by side. If at right angles, then the winding pulleys must be set one before the other, and that nearest the engine-house somewhat below the other, so that the rope from the pulley farthest from the engine-house may clear the other pulley and the rope passing from it. In the latter case, if the distance from the winding pulleys to the engine-house is small, two winding drums on separate shafts will be necessary, the one drum being placed in front of the other; both ropes will then pass on to the upper side of the drum. Each winding pulley should be set in a plane passing through the vertical portion of the winding rope and through the centre of the drum. The distance of the winding pulley from the winding drum should be equal to the diameter of the drum, multiplied by half the breadth of the drum, and divided by the thickness of the rope. It is found in practice, however, that owing to the rope wearing a spiral groove on the surface of the drum the distance may be taken at much less than that given by the above rule. During the first part of the winding, if the breadth of the drum is greater than that given by the above rule, the rope does not tend to wind close against the last coil until the distance of the rope (as it passes on to the drum) from the centre of the drum is equal to the breadth given by the above rule. From this point there is a tendency of the rope to press against and mount the last coil. By placing both winding pulleys near each other, and attaching the rope to the drum near the centre line of the engine, the tendency of the rope to wind close may be made to act during the whole of the winding. In the case of cylindrical drums, the distance of the winding pulleys from the drums is usually taken at from 30 to 50 times the breadth of the drum, and in the case of conical or spiral drums from 20 to 30 times the breadth of the drum. The head gear for supporting the winding pulleys should be of such a height that the engineman can see the cage for some space before the latter could be drawn up close to the pulley, and thus reduce the liability to overwinding. In some places the rule has been followed that this height shall be equal to 1½ times the circumference of the winding drum. The height should depend rather upon the velocity of winding, since the size of the drum varies much even for

the same rate of winding, and in the case of the very large drums which have been more recently employed, the height would become excessive; the height varies in extreme cases from 18 ft. to 75 ft.

To prevent overwinding various appliances have been brought forward, the majority of which consist in an arrangement fixed in the head gear for disconnecting the coupling chains from the rope when the cage reaches a certain height. One of these consists in making one end of a T lever (hinged at its lower end to the lower part of the shackle) serve the place of the shackle bolt, being secured by a thin pin. The opposite end of the horizontal part of the T lever catches against a projection fixed in the head gear, which causes the lever to turn about the hinge, withdrawing the other portion after shearing the locking pin. The end of the lever which serves as the shackle bolt is curved about the hinge as a centre; the opposite end is curved upwards.

The germ of the most usual arrangements is to be found in the proposal by a Scotch gentleman, a writer to the Signet, who suggested the use of two triangular plates, hinged and connected near the apex by the bolt of the rope shackle. In the lower end of each plate is an inverted T slot. In the normal position of the two plates (each of which overlap the other on one side), the vertical portions do not coincide, and the bolt of the coupling chain shackle passes through the horizontal portions of the slots. A strong spring attached to one of the plates presses against the second plate, and keeps the plates

in their normal position. The rope passes through an opening in the head gear, which will not admit the plates in their normal position overlapping each other; but should the winding proceed too far so as to pull the plates through the opening, the spring is compressed, the plates pressed together so as to bring the vertical portion of the slots opposite, when the coupling chain bolt slips through the slots.

In both the above cases some arrangement must be made for catching and holding the disconnected cage. Recent improvements have replaced the spring in the above arrangement by a copper pin, which is sheared at the moment of overwinding. The plates have been made with an X outline hinged in the centre; the upper part (which in the normal position can pass through the opening) has one projecting piece on each plate on opposite sides, which catch against the upper edge of the opening and support the cage, when the upper ends diverge owing to the lower ends of the plates being pressed together when overwinding takes place. The slots are placed in the upper portions of the plates, so that the rope and not the cage is disconnected. Still more recent arrangements are so devised that the rope shall not be disconnected before the plates are sure of being supported, and to obviate any liability of the supporting pieces slipping inwards when overwinding occurs. In addition to the above, the best designed plants have an automatic arrangement attached to the winding engine, so that steam is cut off directly the cage is raised too high, and at the same time to bring the brake into operation.

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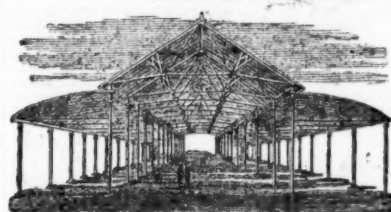
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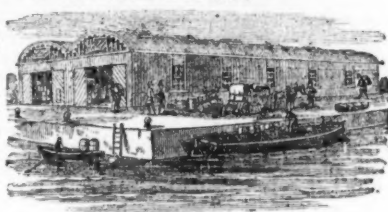
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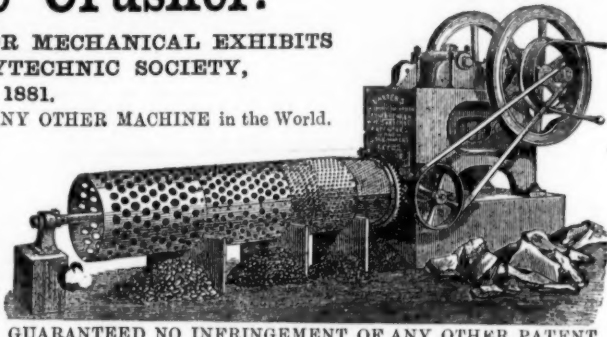
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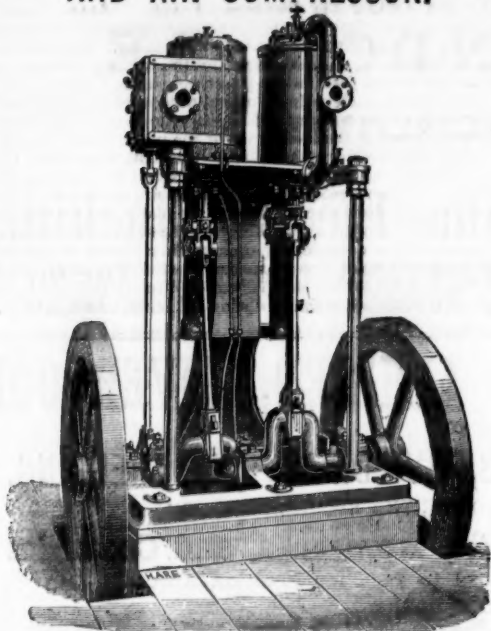
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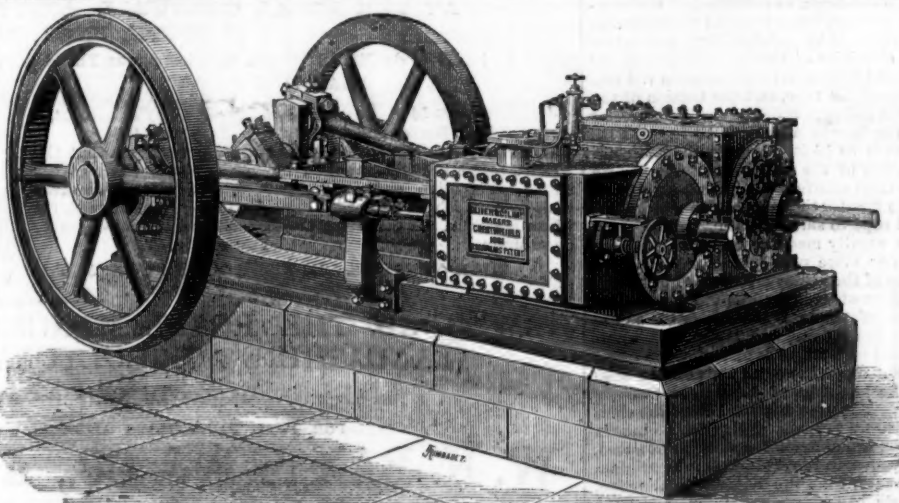
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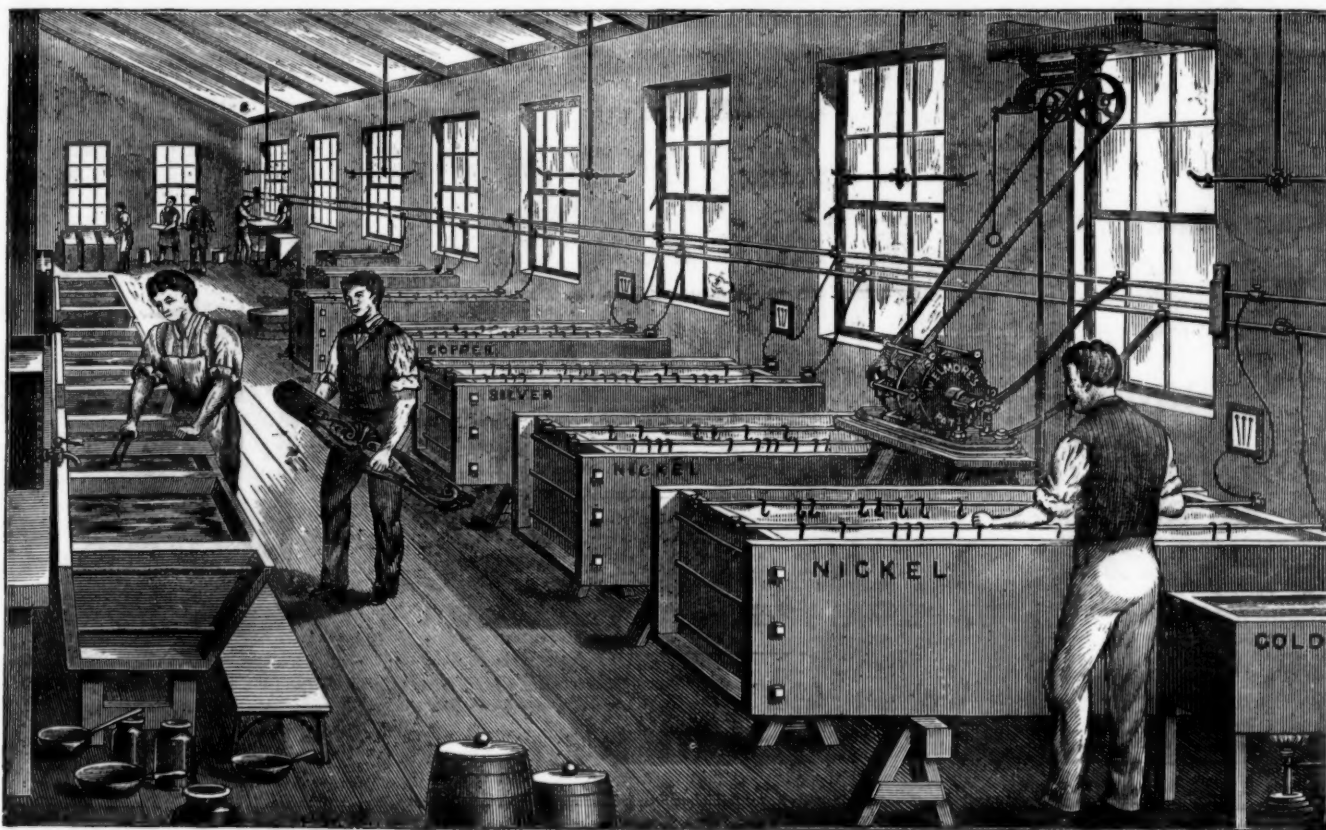
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“Mr. WILLIAM ELMORE, of 91, Blackfriars Road, London, S.E., is busily engaged fitting up the Art Metal Depositing Works of the Electrolytic Company, Charlotte Street, Blackfriars. The Electro-plating tanks of nickel, copper, brass, zinc, and tin, holding several thousands of gallons each (worked by an “Elmore” Patent Dynamo-Electric Machine, capable of depositing about 500 lbs. of metal per day), and the specially designed and constructed polishing machinery will all combine to constitute this most gigantic and complete arrangement of the kind in the world. Here boiler tubes, each over 20 ft. in length, may be coated with copper, large ornamental iron lamp posts, and similar massive iron structural objects of great weight may be covered with electro-deposited copper, forming, when finished, a complete shell of bronze, which may be nickel-plated, or even silver-plated, if desired. Large rough or polished iron surfaces may be coated with brass, or zinc, or tin. Copper electrotypes copies are taken of art subjects, the reproduction being so perfect that the process is used for multiplying plates from which bank-notes are printed, and the most delicate ferns, flowers, leaves, and insects are coated with copper, and afterwards with gold, silver, nickel, &c., for use as ornaments of various kinds. Fenders, fire-irons, grates, &c., may be brased. The largest marine engines may be nickel-plated in the large nickel-plating plant, worked by the powerful “Elmore” machine with ease and certainty, which only a few months since would have been pronounced almost impossible. The Electrolytic Company, we understand, express perfect satisfaction with the work already completed by Mr. Elmore, and there is no doubt that with that gentleman’s large practical experience the company could not have been in better hands. The entire premises will be lighted by the “Elmore” system of electric light.”

From the “LONDON MINING JOURNAL.”

“The new “Elmore” Dynamo-Electric Machine can be seen in operation in London, and is considered one of the most wonderful scientific apparatus which has yet been brought before the public; it should be inspected by all who are interested in any kind of metallurgical operations.”

“Mr. ELMORE has just received two pieces of ordnance from Her Majesty’s Works at Chatham, with an order to nickel-plate the same, together with the carriages upon which they are mounted. Mr. Elmore has done similar work for the Government on previous occasions, and it will be remembered that the screw propellers used on the torpedo boats were nickel-plated by him. The “Elmore” Dynamo-Electric Machines and complete electro-plating outfits have been supplied to Government Departments at home and abroad.”

From the NICKEL PLATING COMPANY, 13, GREEK STREET, SOHO.
Your Machine does its work most satisfactorily, and has never once reversed current, which the Weston Machine frequently did.”

From the ELECTROLYTIC COMPANY,
ART METAL DEPOSITING WORKS,
CHARLOTTE STREET, BLACKFRIARS, LONDON.
“The “Elmore” Dynamo-Electric Machine and entire outfit which you have supplied to this company have given perfect satisfaction.”

From the NICKEL AND SILVER PLATING WORKS,
2, CHARLES STREET, CURTAIN ROAD, E.C.
“Having had one of the “Elmore” Patent Dynamo-Electric Machines in constant use for several months, it gives me great pleasure to say that with it I have been able to deposit four times the weight of metal per day which I had been enabled to do with the Dynamo-Electric Machine, which it has displaced in my establishment.”

From the LONDON NICKEL PLATING COMPANY.
“We have much pleasure in expressing our entire satisfaction with the nickel-plating solution, anodes, and Dynamo Machine that you have supplied us with.”

From the DYNAMO-ELECTRIC PLATING WORKS,
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“The quality of the nickel solutions and anodes at these works, which were supplied by you, is most satisfactory in every way. The Dynamo Machine also works excellently, and has given no trouble whatever since it has been started.”

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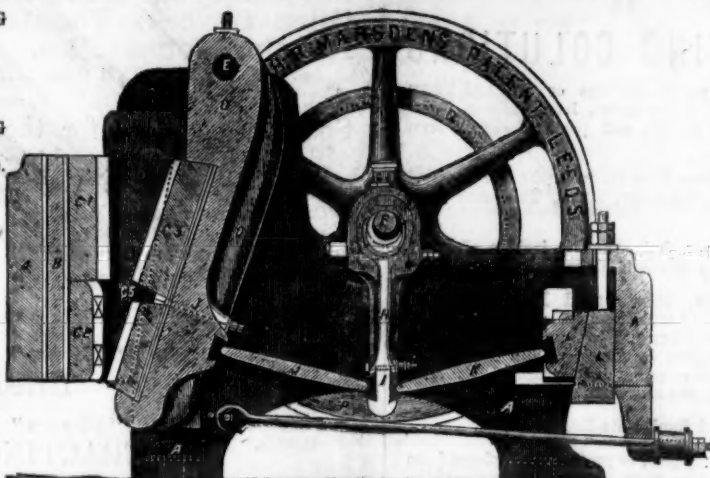
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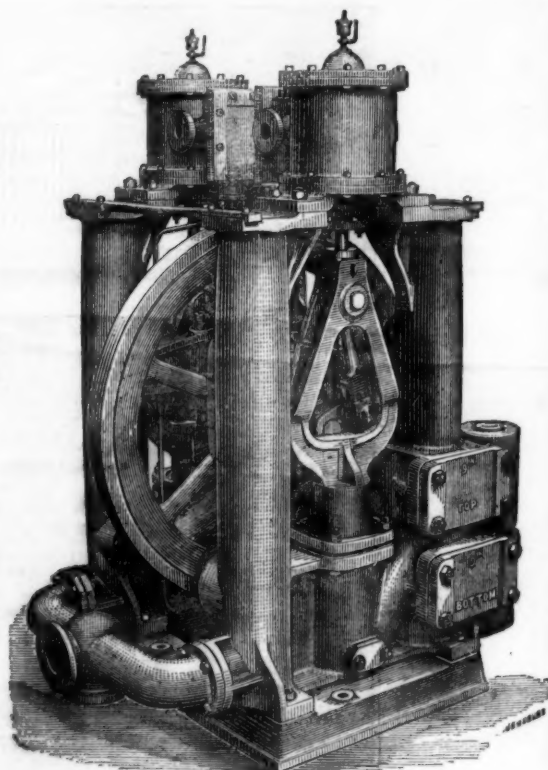
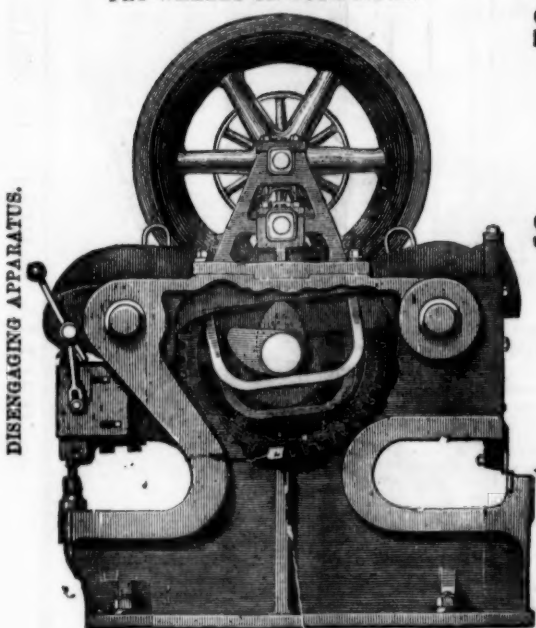
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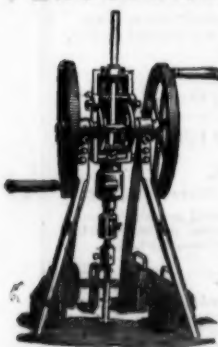
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